



TITLE:

阿蘇に於ける第二回國際極地觀測 期間中の地磁氣觀測：地磁氣要素の 時値

AUTHOR(S):

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阿蘇に於ける第二回國際極地觀測期間中の 地磁氣觀測—地磁氣要素の時值

阿蘇火山研究所に於ける地磁氣觀測

阿蘇火山研究所に於いてはその設立以來、創設者故志田順博士によりて火山地帯に於ける地磁氣測量及び觀測が計畫されてゐた。觀測には Mascart の變化計を用ひるやうに準備されてゐたのであるが、偶々昭和七年(1932)より同八年にかけての第二回國際極地觀測に参加することになつて、當時あつた觀測器械を修理或は改造して阿蘇山の中腹に觀測室を設備して常時觀測を行ふことになつた。これらの器械の改造及び設備等は凡て志田博士監督の下に長谷川萬吉、佐々憲三兩氏を主として、安田幾之助、田村雄一、西村英一氏等の教室員が分擔して之れに當つた。現地に於ける觀測は専ら西村英一氏によつて行はれ林一、大島英也兩氏等が補佐した。猶ほ結果の整理に關しては太田征次郎氏に負ふところが尠からず、又南葉宗利氏は全期間を通じて現地に於いて種々の斡旋の勞をとつた。

この觀測は極地觀測期間後も引續き繼續されたのであるが、經費の關係で昭和十三年以降は一時休止して目下火山研究所構内に新たに觀測室を整備し再び繼續するために準備中である。茲には極地觀測期間(昭和七年八月より昭和八年八月迄)の時值のみを報告する。

地磁氣觀測所の位置

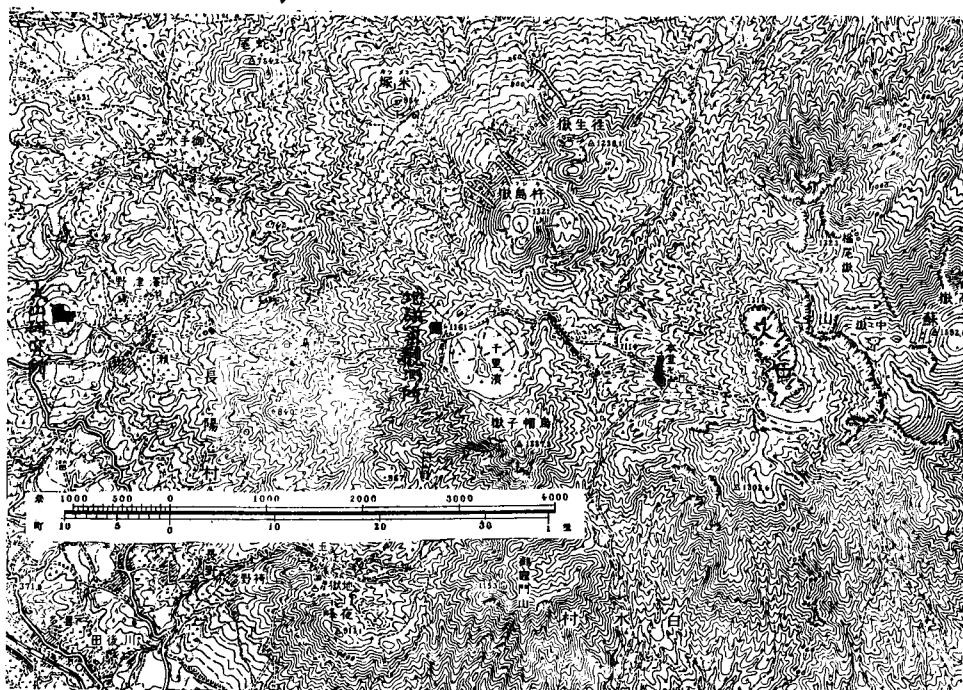
第一圖に示す如く阿蘇中岳と火山研究所との中間點海拔約1100米の所(千里ヶ濱附近)にあり、地理的及び磁氣的緯度、經度は夫々次の通りである。

$$\varphi=32^{\circ}52' \text{ N } \lambda=131^{\circ}03' \text{ E}$$

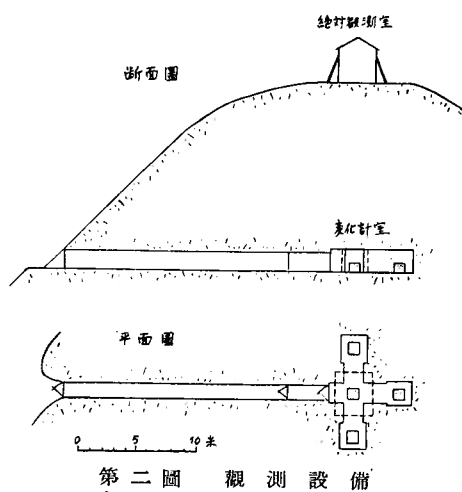
$$\Phi=22^{\circ}.0 \text{ N } \Lambda=163^{\circ}.2 \text{ E.}$$

觀 測 設 備

絶對觀測室は尾根の頂にありて南北4米、東西3米の木造である。變化計室は第二圖に示す如く絶對觀測室の直下16米の地中にあつて尾根の側面より長さ25米の坑道によつて外



第一圖 地磁氣觀測所の位置



第二圖 觀測設備

部に通じてゐる。

觀測器械

絶對觀測器械：田中館式を一部改造したもの。

偏角(D)變化計：磁針は直径 1.6 耗，長さ 40 耗の K. S. 鋼，磁氣能率は約 45 C. G. S. で

ある。可動鏡及び磁針をかける鉤は共に熔融水晶から成り、水晶細線と熔融して固着せしめてある。

水平分力(H)變化計：構造は偏角變化計と同様であるが吊線は直徑約 45 μ の單線である。偏向磁石は使用せず。

鉛直分力(Z)變化計：田中館博士の改良した Watson 型のもの。

記録用時計仕掛：遲廻しでは24時間に、早廻しでは3時間に一廻轉する。平常は遲廻しとし毎月の國際日には早廻しとした。

變化計室内の溫度

昭和七年(1932)八月初めより翌年八月末迄の期間の變化計室内の溫度は第一表に示す通りであつて日變化は認められなかつた。

Table 1. Monthly mean temperature in the variometer room.

Year	1932					1933							
Month	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Temp. (°C)	15.1	14.5	13.8	13.7	13.5	13.4	13.2	13.1	13.1	13.2	13.3	13.6	14.0

地磁氣變化記錄の寸値及び基線値

D-變化計の寸値は可動鏡と記録紙との距離から計算され、0'.428/耗であつた。H-變化計及びZ-變化計の寸値は三變化計に夫々附着してゐる全く等しい Helmholtz コイルに共通の電流を送つて記録紙毎に感度の測定を行つて求めた。

觀測所は附近に障礙を與へるやうな電氣施設は全くないけれども、海拔1100米の高所にあるから強風及び冬期の極寒の爲め正確なる觀測結果を期待し難い場合があつたが、かかる場合を除いては出来る限り屢々絶對觀測を行つた。基線値はこれらの絶對觀測値と記録とを比較してその平均値を以つてした。

採用した基線値及び寸値は第二表に掲げた。

各分力の時値を第3表——第41表、磁氣特性數を第42表、數値特性數 n , n_H , n_Z を夫々第43表、第44表、第45表に掲げた。茲に

$$n = \frac{R_H H + I_Z Z}{10000}, \quad n_H = \frac{R_H H}{10000}, \quad n_Z = \frac{R_Z Z}{10000}.$$

表中の時間は凡て
グリニツチ時であ
る。

注意：絶對觀測に
ついては前述のや
うな障があるほ
か、觀測器械に附
屬の棒磁石、支持
器に關する常數は
大正二年(1913)に
水路部決定のもの
をその儘用ひた。
かやうな點から見
て觀測された絶對
值そのものは決し
て充分とは云ひ難
いのであるが、當
地のやうに火山岩
の集積地帯に於い
ては距離による地
磁氣の値の變化が
複雑であつて、一
點に於ける絶對值

Table 2. Adopted base-line values and scale values.

Declination		Horizontal intensity		Vertical intensity	
Duration	Base-line value	Duration	Base-line value	Duration	Base-line value
1932 Aug. 1 0~Oct. 21 18	4°04.5	1932 Aug. 1 0~Aug. 28 0	31883	1932 Aug. 1 0~Oct. 21 8	34041
Oct. 21 19~Nov. 2 18	36.0	Aug. 29 0~Oct. 21 23	31868	Oct. 21 9~Jan. 14 2	34041
Nov. 2 19~Nov. 3 11	43.0	Oct. 22 0~Jan. 14 2	31868	1933 Jan. 14 3~Feb. 7 1	34038
Nov. 4 2~Nov. 7 1	14.6	1933 Jan. 14 3~Feb. 13 13	31875	Feb. 7 2~May 5 12	34039
Nov. 7 2~Jan. 14 2	03.5	Feb. 13 14~Feb. 23 22	31878	May 6 6~Aug. 31 23	34045
1933 Jan. 14 3~Feb. 7 6	03.7	Feb. 26 6~Mar. 21 23	31884		
Feb. 8 9~Feb. 10 19	03.9	Mar. 22 0~Mar. 25 12	31901		
Feb. 10 20~Feb. 13 13	04.0	Mar. 25 13~May 5 23	31905		
Feb. 13 14~Mar. 21 23	03.9	May 6 0~Aug. 31 23	31904		
Mar. 22 0~May 5 12	03.6				
May 5 13~Aug. 31 23	04.2				

を正確に決定すると云ふことの重要性は餘り大きいとは考へられない。この器械の國際標準器との比較を未だ行つてゐないのはその爲めである。従つて觀測の結果は一種の相對的の値を示すものと見なければならぬ。これに反して表に示される日變化については變化計室の溫度の日變化も殆んどなく、充分信賴されてよいのである。

Declination* (West) 8°00'0+.....'

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range
Day	46.5	48.5	50.9	52.4	52.7	52.0	51.4	50.4	49.7	49.3	49.9	50.0	50.0	49.8	49.4	49.6	49.7	49.3	48.1	48.3	48.5	47.8	47.6	47.5	49.55	52.7	45.7	7.0
1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2 d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3 d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5	—	—	—	—	49.9	49.1	48.7	47.9	49.4	50.1	49.9	49.7	49.4	49.3	49.3	48.9	49.3	48.5	47.6	46.9	47.4	(47.4)	(47.4)	—	—	50.6	46.4	4.2
6	48.2	50.6	51.8	51.8	51.6	51.3	50.5	50.0	49.3	49.3	49.6	49.7	49.5	49.5	49.4	49.4	49.1	48.9	48.9	48.8	48.6	47.2	47.0	47.4	49.47	51.9	46.6	5.3
7	48.5	(49.5)	50.4	51.4	51.9	51.9	51.0	50.7	49.9	49.7	49.6	49.6	49.3	49.6	49.3	49.3	49.3	49.0	48.9	49.0	48.9	47.9	46.3	46.3	49.46	52.1	45.8	6.3
8	46.5	48.0	50.2	51.3	51.9	52.2	51.8	51.1	50.3	49.8	49.7	49.7	49.4	49.3	49.5	49.5	49.3	49.4	49.2	49.3	48.2	47.2	46.7	46.7	49.53	52.3	46.5	5.8
9	47.0	48.4	49.6	50.1	51.0	51.8	51.8	51.3	50.3	49.8	49.9	49.8	49.7	49.9	49.7	49.6	49.7	49.5	49.4	49.4	48.4	48.3	46.8	46.3	49.50	52.0	46.3	5.7
10 c	47.4	50.0	51.3	52.5	52.8	52.2	51.4	50.2	49.1	(48.9)	49.2	49.4	49.3	49.3	49.5	49.5	49.2	49.0	49.1	48.9	48.7	48.0	(47.1)	45.8	49.49	52.9	45.8	7.6
11	46.2	45.4	51.4	52.6	52.9	52.0	51.1	50.6	49.7	49.4	49.4	49.4	49.3	49.3	49.5	49.4	49.2	48.7	48.4	48.1	47.9	47.0	46.2	45.6	49.11	52.9	45.3	7.6
12	(48.2)	50.5	52.1	52.3	53.2	52.8	51.7	50.4	49.9	49.7	49.7	50.1	50.1	49.4	49.1	48.9	48.7	48.8	48.5	48.4	48.1	47.1	46.5	(47.4)	49.65	53.6	46.2	7.4
13	(48.2)	49.4	51.1	52.8	53.6	53.2	52.3	51.8	50.8	49.3	49.7	49.8	49.6	50.0	49.2	48.8	49.1	48.8	48.6	48.2	48.2	47.6	46.2	46.2	49.69	53.7	46.0	7.7
14	46.7	48.1	50.8	52.4	52.8	52.9	52.1	50.6	49.7	49.4	48.8	49.4	49.8	49.7	48.9	49.3	49.1	48.9	48.7	48.7	48.4	48.0	47.2	47.2	49.48	52.9	46.7	6.2
15	47.6	48.9	51.1	52.7	53.0	52.6	51.6	50.6	49.6	49.3	49.6	49.7	49.5	49.3	49.3	49.6	49.3	49.2	48.9	48.8	48.5	47.6	45.9	46.3	49.52	53.0	45.9	7.1
16 c	47.5	50.7	52.7	53.4	54.1	53.5	52.1	50.5	49.3	48.9	49.3	49.5	49.5	49.4	49.3	49.3	49.3	49.1	49.2	48.9	48.8	47.8	46.3	46.4	49.78	54.2	46.0	8.2
17 c	48.0	50.8	52.9	53.7	53.4	51.9	50.4	49.1	48.9	48.8	49.4	49.6	49.7	49.5	49.4	49.3	48.8	48.6	48.3	48.7	48.4	48.2	46.9	46.7	49.56	53.8	46.4	7.4
18 c	47.7	49.3	51.0	52.0	52.4	52.8	52.3	51.0	49.7	48.7	48.8	49.3	49.3	49.3	49.3	49.1	48.9	48.9	49.1	48.8	48.6	47.8	45.9	45.8	49.40	52.9	45.4	7.5
19 c	47.4	50.4	52.5	53.6	53.6	52.8	52.1	50.6	49.9	48.5	49.0	49.3	49.5	49.4	49.4	49.0	49.3	48.7	48.7	48.5	48.4	47.5	46.3	44.6	49.54	53.9	44.5	9.4
20	45.1	46.7	49.9	52.7	54.1	53.5	52.7	51.1	49.6	48.9	49.4	49.8	49.6	49.5	49.5	49.3	49.1	48.9	48.5	48.4	48.1	47.2	46.0	44.9	49.28	54.1	44.9	9.2
21	45.9	48.1	49.9	52.0	53.2	53.3	52.8	51.5	49.6	48.8	49.4	49.6	49.6	48.4	49.0	49.3	49.1	49.0	48.9	47.9	48.1	47.4	46.2	46.0	49.31	53.5	45.7	7.8
22	46.7	49.1	51.4	53.8	54.1	53.4	52.4	51.1	50.4	49.4	49.6	49.4	48.9	49.4	49.4	48.8	49.2	48.8	49.1	50.1	48.7	48.0	46.8	46.6	49.77	54.4	46.3	8.1
23	47.4	48.8	50.9	53.0	53.0	53.0	52.7	51.5	50.2	48.9	48.1	47.9	49.4	49.6	49.7	48.8	49.2	49.4	49.2	48.9	48.9	48.2	47.3	46.1	49.59	53.4	45.9	7.5
24	46.2	49.8	51.7	52.8	52.7	51.8	—	55.4	—	—	—	—	—	49.6	49.8	49.3	49.4	49.8	—	49.3	49.2	48.2	46.5	46.6	—	—	—	—
25	47.3	49.0	50.4	52.1	53.1	52.3	51.1	50.2	49.3	48.8	49.3	49.6	49.5	49.4	49.5	49.4	49.0	48.8	48.7	48.7	48.5	47.4	46.5	46.2	49.34	53.2	46.0	7.2
26	47.4	49.6	51.7	53.2	52.8	51.8	50.6	49.6	49.5	49.1	49.4	49.7	49.5	49.4	49.5	49.4	49.4	49.1	49.1	48.8	48.6	48.4	47.6	47.6	49.62	53.2	47.2	6.0
27 d	47.2	48.9	50.6	51.6	52.7	52.3	51.9	51.4	50.6	50.1	50.1	50.5	50.2	49.9	49.1	50.1	47.8	48.4	48.2	48.2	48.1	46.6	46.5	46.7	49.49	52.7	45.7	7.0
28 d	49.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
29 d	50.4	50.5	52.3	52.9	52.9	51.8	51.1	49.9	49.0	48.3	49.1	48.4	49.0	48.2	49.0	48.4	48.2	49.3	49.3	49.1	48.3	47.2	47.6	47.1	49.47	53.4	46.2	7.2
30	47.7	50.5	51.4	52.9	52.2	51.3	50.2	49.9	48.4	48.6	49.3	49.4	48.4	49.4	48.8	49.4	49.7	48.0	49.0	49.3	49.1	48.6	46.8	47.0	49.39	52.9	46.4	6.5
31	48.2	50.4	52.3	53.8	(52.8)	(51.6)	50.4	49.0	47.9	48.4	48.5	49.3	49.3	49.3	49.6	49.3	49.2	48.7	48.9	48.7	48.1	47.2	46.9	46.5	49.35	53.5	46.5	6.8
mean.	47.40	49.20	51.22	52.50	52.87	52.41	51.58	50.56	49.62	49.12	49.35	49.49	49.50	49.41	49.32	49.28	49.11	48.91	48.82	48.76	48.53	47.69	46.70	46.44	49.49	—	—	—
∇ c	47.60	50.24	52.08	53.04	53.26	52.64	51.66	50.28	49.38	48.76	49.14	49.42	49.46	49.38	49.38	49.24	49.10	48.86	48.82	48.76	48.58	47.86	46.50	46.30	49.55	—	—	—
∇ d	48.80	49.70	51.45	52.25	52.80	52.05	51.50	50.65	49.80	49.20	49.60	49.45	49.60	49.05	49.05	49.25	48.00	48.55	48.75	48.65	48.20	46.90	47.05	47.60	49.48	—	—	—

* Hourly instantaneous values. c denotes an International Calm Day. d denotes an International Disturbed Day.

Table 4

Declination (West) 3°00'0" +

September 1932.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range
Day	47.0	48.9	50.8	53.1	53.3	52.3	50.5	49.1	48.2	48.1	48.9	49.4	49.6	49.5	48.7	49.3	49.6	49.0	48.9	48.4	49.7	48.5	47.8	46.4	49.21	53.5	46.1	7.4
1	48.2	51.1	52.3	53.6	53.8	52.1	50.0	48.5	47.8	48.2	49.1	49.5	49.5	49.1	49.3	49.1	49.0	48.8	48.6	48.6	48.4	47.5	46.5	45.4	49.33	54.2	45.4	8.8
2	46.8	49.7	52.0	53.7	54.5	52.9	50.9	49.2	48.3	48.1	48.8	49.8	49.8	49.1	49.3	49.1	49.1	49.1	48.5	48.5	48.0	47.4	46.4	45.6	49.32	54.6	45.5	9.1
3 c	46.1	48.9	51.8	53.5	53.8	52.6	50.8	49.1	48.1	48.1	48.9	49.1	49.3	49.3	49.1	49.1	49.0	49.0	48.8	48.4	48.2	48.0	47.0	47.2	49.30	53.8	46.1	7.7
4	47.4	49.0	50.4	51.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5	—	47.6	50.5	52.4	53.2	53.2	52.1	51.2	49.2	49.1	49.5	49.8	49.8	49.3	49.5	49.8	48.4	49.0	48.7	48.9	48.4	49.7	48.5	47.8	46.7	—	—	—
6 d	47.1	48.8	50.8	52.1	52.6	51.7	50.8	50.4	49.3	48.9	48.2	49.3	49.1	49.3	49.5	49.5	49.3	49.1	48.9	48.8	48.2	47.8	46.2	45.8	49.35	52.7	46.0	6.7
7	46.2	47.6	50.4	52.6	53.6	52.1	51.3	50.4	50.0	49.5	49.9	49.8	49.6	49.4	49.1	49.0	48.7	48.0	47.7	48.1	47.6	47.2	46.2	45.8	49.28	53.8	46.1	7.7
8 d	48.0	49.4	50.7	52.4	52.5	51.6	50.7	50.0	49.2	49.3	49.6	49.8	49.5	49.5	49.2	49.3	49.0	48.9	48.3	48.5	48.4	47.9	47.7	46.2	49.45	52.7	47.5	5.2
9	48.6	49.7	50.9	51.6	51.3	50.7	49.4	48.9	49.0	49.1	49.4	49.8	49.2	49.3	49.2	49.1	49.0	49.0	49.0	48.9	48.6	48.1	47.9	47.5	49.28	51.7	47.4	4.8
10 c	47.8	(48.7)	50.5	50.9	51.2	50.8	49.4	48.6	49.1	49.3	49.3	49.5	49.4	49.4	49.3	49.3	49.0	48.9	48.8	48.6	48.4	48.2	47.8	47.2	49.05	51.2	46.9	4.8
11 c	47.8	48.9	50.4	51.2	51.6	51.0	49.7	48.6	48.0	48.6	48.8	49.3	48.8	48.5	49.2	48.9	48.8	48.7	48.4	48.5	48.3	47.6	47.5	47.9	48.96	51.7	47.2	4.5
12	48.5	50.5	52.1	52.6	52.6	51.9	50.4	49.2	48.4	48.8	49.2	49.3	49.4	49.3	49.0	48.8	48.2	47.8	48.1	48.1	48.4	47.4	47.4	47.2	49.37	52.6	47.0	5.6
13	48.2	(50.4)	52.5	53.8	54.0	52.7	50.9	50.4	49.3	51.4	(49.3)	49.4	49.5	49.4	49.2	49.1	48.8	48.6	48.5	48.1	48.2	48.5	47.7	47.6	49.81	54.1	47.5	6.6
14	47.8	49.2	51.7	53.3	(54.1)	52.5	50.1	49.9	47.6	48.7	(49.1)	51.4	49.4	49.5	48.7	48.6	48.6	48.5	48.4	48.3	48.2	47.5	47.1	47.7	49.41	54.1	46.9	7.2
15	49.0	50.6	51.7	52.6	52.1	50.8	49.4	50.5	48.0	48.8	49.2	49.2	49.2	49.4	49.0	49.0	49.0	48.9	48.8	48.7	48.5	47.8	46.5	45.7	49.27	52.6	45.5	7.1
16 c	46.2	48.3	50.4	52.3	52.9	52.3	50.6	49.2	48.3	48.7	49.3	49.4	49.1	49.1	49.0	49.0	48.9	48.7	48.4	48.5	48.4	48.0	47.3	46.8	49.18	52.9	46.5	6.4
17 c	47.2	48.8	50.8	52.4	52.2	51.1	49.7	48.8	48.2	49.0	49.4	48.9	49.3	49.3	49.0	48.8	48.2	47.8	48.0	48.1	47.5	47.3	46.2	48.0	48.92	52.6	45.9	6.7
18	47.4	48.9	51.4	52.1	52.0	51.6	50.7	49.6	48.9	49.1	47.0	49.9	49.0	49.6	49.6	49.6	49.6	48.0	48.1	48.3	47.9	48.4	47.7	48.0	49.17	52.2	46.8	5.4
19	47.2	48.4	51.0	52.7	52.8	51.9	50.6	49.8	48.2	48.1	49.6	49.6	49.5	49.4	49.2	48.5	49.0	48.6	48.6	48.5	48.5	48.4	47.8	47.4	49.28	53.2	47.2	6.0
20	47.4	49.2	50.6	51.6	51.7	51.0	50.6	49.0	48.3	49.0	49.5	49.3	49.2	49.0	49.0	49.0	48.9	48.9	48.9	48.6	48.8	48.6	48.3	47.9	49.26	51.7	46.7	5.0
21	46.9	47.0	47.6	49.8	51.4	51.7	50.9	49.2	48.2	48.7	49.2	50.1	49.9	49.2	49.2	48.8	48.8	50.0	48.9	49.0	49.2	49.5	48.7	47.6	49.15	51.7	46.7	5.0
22	47.8	49.5	51.2	52.0	49.9	51.9	50.4	49.3	49.2	48.2	48.9	48.6	49.0	49.3	48.6	48.6	50.2	47.8	47.8	48.0	48.5	51.2	48.2	48.4	49.26	52.9	46.9	6.0
23 d	49.0	50.2	51.5	52.6	51.1	51.9	50.8	49.2	48.6	48.7	49.0	48.6	49.5	49.9	49.3	48.1	47.8	47.7	48.1	48.6	48.4	48.5	48.2	48.8	49.32	52.6	47.2	5.4
24 d	(49.8)	49.8	51.8	53.0	52.0	51.1	49.3	49.1	49.1	48.7	48.5	48.5	48.3	48.9	48.3	48.8	46.7	47.9	48.8	46.7	48.5	49.7	49.9	50.2	49.29	53.4	46.7	7.7
25 d	49.2	50.5	51.6	52.0	51.7	50.2	49.5	48.4	48.2	48.8	49.1	47.8	49.2	49.6	49.3	49.2	49.1	48.8	48.7	48.7	49.6	49.7	49.1	48.4	49.48	52.2	47.5	4.7
26	48.5	50.1	51.5	52.0	52.1	51.1	49.9	49.1	48.7	48.7	49.4	49.1	49.2	48.7	48.7	48.8	49.5	49.5	49.0	49.5	49.4	48.6	48.1	47.8	49.46	52.3	47.6	4.7
27	48.4	49.8	(51.0)	51.9	51.9	50.8	49.9	49.3	49.1	48.4	49.3	49.7	48.7	49.3	49.9	49.0	49.0	49.0	48.7	48.6	48.7	48.3	48.2	48.2	49.59	51.9	48.2	8.7
28	48.1	49.3	51.4	52.0	50.8	50.0	48.7	48.0	48.0	48.7	48.9	49.4	49.6	49.6	49.3	49.2	49.1	48.9	48.8	48.7	49.5	49.1	48.8	48.7	49.27	51.7	47.7	4.0
29	49.0	49.6	50.9	51.8	51.9	51.1	49.9	48.7	48.8	48.8	49.9	49.4	48.8	49.1	49.4	48.5	48.6	48.6	48.6	48.7	49.1	48.8	49.1	47.6	49.86	52.0	47.4	4.6
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
mean	47.81	49.29	51.10	52.33	52.39	51.59	50.27	49.32	48.60	48.81	49.08	49.36	49.26	49.29	49.16	48.95	48.85	48.69	48.54	48.43	48.54	48.28	47.73	47.48	49.30	—	—	—
“ c	47.68	49.40	51.10	52.22	52.40	51.40	49.94	49.28	48.54	48.80	49.20	49.34	49.24	49.26	49.16	49.10	48.98	48.90	48.66	48.60	48.34	47.82	47.06	46.80	49.21	—	—	—
“ d	48.07	48.94	56.08	52.52	52.08	52.04	50.78	49.84	49.22	48.84	48.98	49.00	49.14	49.28	49.02	48.58	48.48	48.02	48.18	47.96	48.54	49.10	48.26	47.85	49.38	—	—	—
	48.52	49.74	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 5

Declination (West)

3°00'0+.....'

October 1982.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	min.	Range.	
Day																													
1	47.9 (48.7)	50.1	50.8	51.4	50.5	49.2	48.3	48.0	48.3	49.3	49.5	49.6	49.6	49.4	48.9	49.0	48.9	48.8	48.7	48.6	48.9	48.8	48.2	47.4	49.10	51.7	47.2	4.5	
2	47.6	48.2	51.7	51.9	52.4	51.5	50.0	48.5	48.0	48.8	49.3	48.2	49.8	49.0	50.0	49.1	49.1	48.7	48.7	49.0	48.7	48.5	48.2	47.4	49.26	52.4	47.1	5.3	
3	47.5	49.6	51.2	51.7	51.8	51.7	50.3	48.9	48.4	49.3	49.6	49.4	49.2	49.2	49.2	48.8	49.0	49.1	48.9	48.8	48.7	48.9	48.7	47.0	49.36	52.2	46.6	5.6	
4	46.7	47.8	50.0	51.7	51.7	51.4	50.2	48.8	48.0	48.6	49.0	48.4	49.0	49.2	49.0	48.7	48.7	48.2	47.9	47.8	47.9	48.2	48.0	47.8	48.86	52.0	47.4	4.6	
5	47.6	48.3	48.9	50.4	50.6	50.6	49.9	49.0	48.8	48.9	49.3	49.6	49.6	49.6	49.5	49.3	48.9	48.3	48.7	48.7	48.5	48.7	49.0	48.3	49.18	51.2	47.6	3.6	
6 c	48.1	47.8	48.3	49.5	50.3	50.7	50.1	49.2	48.7	48.9	49.0	49.0	49.2	49.2	49.2	49.2	48.8	48.6	48.6	48.6	48.8	48.9	48.9	47.8	48.96	50.7	47.1	3.6	
7	47.2	48.0	49.0	50.7	51.9	51.9	51.2	49.8	48.7	48.9	49.1	49.1	49.1	49.1	49.1	48.9	48.7	48.5	48.5	48.6	48.7	49.0	49.0	47.7	49.18	52.0	47.0	5.0	
8	47.0	47.3	(48.8)	(50.2)	(51.7)	51.1	46.0	44.8	48.7	49.1	49.1	49.0	49.0	49.1	49.0	48.9	48.8	48.6	48.5	48.7	48.6	48.7	48.7	47.4	48.62	52.0	46.5	5.5	
9	46.4	47.1	48.2	49.4	50.6	51.0	50.5	49.7	49.4	49.2	49.2	49.5	49.2	49.2	49.2	48.9	48.6	47.7	48.3	48.6	48.5	48.9	48.7	48.4	48.89	51.1	46.6	4.5	
10	48.1	48.4	48.4	49.9	50.3	50.6	50.4	49.6	49.1	49.1	49.1	49.2	49.2	49.3	49.0	48.7	48.8	48.1	48.6	48.7	49.1	49.5	49.3	48.9	49.18	50.8	47.8	3.0	
11	48.2	47.4	48.0	49.8	50.5	50.4	50.0	49.4	49.5	49.1	49.1	49.2	49.3	49.2	49.1	49.1	48.9	48.7	48.6	48.6	48.6	49.2	49.2	48.5	49.07	50.8	47.4	3.4	
12	48.4	48.9	50.1	50.8	51.5	50.7	49.0	48.7	48.7	49.0	49.1	49.2	49.2	49.2	49.2	49.0	48.7	48.5	48.2	48.2	48.1	48.7	48.7	48.2	49.08	51.4	48.0	3.4	
13 c	48.2	48.3	49.5	51.7	52.3	51.1	49.6	49.0	48.6	49.0	49.2	48.9	49.2	49.2	49.3	48.9	49.1	48.9	48.6	48.5	48.4	48.6	48.5	47.8	49.12	52.4	47.3	5.1	
14 c	47.1	47.8	49.4	51.1	52.0	51.1	49.7	48.7	48.5	48.9	49.0	49.1	49.2	49.2	49.2	49.3	49.3	49.0	48.8	48.7	48.4	48.4	48.6	48.5	47.8	49.07	52.0	47.1	4.9
15 d	47.5 (47.4)	48.6	50.2	51.4	50.6	48.9	48.4	49.5	49.3	48.0	49.8	49.9	49.9	49.9	49.8	47.6	47.1	48.0	47.1	48.9	49.3	49.0	48.9	49.1	49.3	48.84	51.4	47.0	4.4
16 d	50.1	50.4	51.2	52.9	53.0	52.7	50.6	49.1	47.4	48.7	49.2	47.9	49.1	49.1	49.3	49.5	49.4	49.1	49.1	48.7	48.9	48.7	48.9	48.8	48.5	49.66	53.5	47.0	6.5
17	48.2	49.5	50.1	50.7	51.2	50.6	49.5	48.9	48.8	47.4	49.4	49.4	49.4	49.6	48.5	48.8	49.0	50.2	49.4	49.2	49.0	49.4	49.0	49.1	49.1	49.1	51.2	47.4	3.8
18	—	—	—	—	—	—	—	—	—	—	—	—	—	49.1	49.0	49.3	49.3	49.4	49.4	49.2	49.0	49.4	49.0	49.1	49.1	—	—	—	—
19	48.2	48.4	48.6	48.7	51.2	51.5	50.4	49.6	49.1	49.4	49.4	49.2	49.0	48.0	49.2	49.4	49.0	49.0	48.9	48.9	49.1	49.3	49.1	48.2	49.20	51.8	47.5	4.8	
20 d	47.5	47.5	48.2	49.7	50.5	50.4	49.5	48.9	48.8	49.0	49.4	48.6	49.0	48.4	48.7	49.2	49.0	49.0	46.4	49.2	49.9	51.2	51.1	51.2	49.18	53.7	46.4	7.3	
21 d	51.1	51.7	51.7	52.3	52.4	51.2	50.3	49.2	49.5	49.0	47.7	49.5	49.4	49.5	49.3	49.0	49.1	49.0	49.0	49.3	49.9	50.9	51.0	49.9	50.04	53.5	46.1	7.4	
22	49.1	48.7	49.0	50.3	52.1	52.2	52.1	50.6	49.9	49.9	49.7	49.5	49.3	49.6	48.0	48.0	47.4	46.4	46.3	46.7	48.5	48.7	48.7	48.5	49.16	53.1	46.0	7.1	
23 d	48.9	50.2	50.0	51.6	52.8	51.2	49.0	48.7	48.1	48.9	48.9	48.0	48.1	47.7	47.4	48.1	46.7	48.4	47.4	47.3	48.1	48.1	48.9	48.9	48.81	52.9	46.1	6.8	
24	48.9	48.7	48.9	49.0	49.1	48.5	48.1	47.4	47.9	48.0	48.1	48.7	49.0	49.0	47.3	49.0	49.1	49.0	49.3	49.3	49.5	49.6	49.6	49.9	49.6	48.81	50.3	47.3	3.0
25	49.0	48.7	48.4	49.6	50.6	50.6	50.3	50.2	49.3	49.1	49.0	49.0	49.8	49.8	48.9	48.3	48.1	48.9	49.0	49.0	49.1	49.3	49.5	50.0	49.28	50.8	47.9	2.9	
26 c	49.6	49.6	49.6	49.8	50.6	50.8	50.9	50.6	50.1	50.0	50.1	50.0	49.9	49.6	50.0	49.9	49.8	49.9	49.8	50.2	49.6	49.8	50.2	(49.9)	50.01	50.9	49.6	1.3	
27	49.8	49.5	49.6	50.8	51.8	51.8	—	—	—	—	—	—	51.0	47.4	49.9	49.1	46.7	49.3	49.6	49.1	49.5	49.6	50.0	49.9	49.8	—	—	—	—
28 c	49.3	48.9	49.0	50.5	51.4	50.6	50.3	49.5	49.1	49.6	50.2	51.0	49.8	49.6	49.8	49.8	49.8	49.6	49.6	49.3	49.1	49.6	49.6	48.8	49.75	51.4	48.7	2.7	
29	48.4	48.3	48.4	50.3	51.8	51.8	50.8	49.8	49.3	49.1	49.1	49.1	49.1	49.1	49.1	49.0	49.0	48.9	48.9	48.7	48.9	48.5	48.4	48.9	48.6	49.26	51.8	48.8	3.5
30	48.1	47.9	48.9	50.3	51.5	51.6	50.9	50.5	50.5	50.8	50.9	51.3	50.6	51.0	50.8	51.0	50.3	51.0	51.3	51.2	51.5	51.6	51.8	51.8	50.71	51.8	48.1	3.7	
31	52.0 (51.9)	51.6	52.0	53.1	53.2	52.5	52.5	51.8	51.0	50.6	50.5	50.5	49.1	49.8	48.9	48.9	48.9	48.9	48.8	48.8	48.4	48.0	47.9	47.0	50.17	53.3	47.0	6.3	
mean	48.35	48.64	49.42	50.60	51.45	51.11	50.02	49.17	48.95	49.20	49.24	49.27	49.29	49.12	49.04	48.99	48.82	48.76	48.63	48.79	48.98	49.12	49.12	48.57	49.27	—	—	—	—
7 c	48.46	48.48	49.16	50.52	51.32	50.86	50.12	49.40	49.00	49.28	49.50	49.60	49.46	49.38	49.44	49.42	49.26	49.10	49.04	48.96	48.92	49.10	49.02	48.72	49.38	48.82	—	—	—
7 d	49.02	49.44	49.94	51.34	52.02	51.22	49.66	48.86	48.66	48.98	48.64	48.76	49.10	48.66	48.50	48.56	48.38	48.64	48.08	48.80	49.12	49.60	49.78	49.00	49.80	49.56	—	—	—

November 1882.

Declination (West) 3°00'0 +

Table 6

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max	Min	Range
Day																												
1 d	46.3	46.1	47.6	50.2	52.5	53.0	52.8	49.5	49.5	50.8	51.0	50.5	—	—	—	—	—	—	—	49.5	49.5	49.5	—	—	—	—	—	—
2	—	—	51.6	52.0	51.8	51.1	50.0	50.0	49.5	49.2	49.2	50.4	49.0	50.4	50.4	50.4	50.2	49.8	—	—	—	—	—	—	—	—	—	—
3	48.7	48.7	50.4	51.9	51.9	51.8	50.6	50.6	50.6	48.9	48.9	50.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4	—	—	45.2	46.6	50.0	51.1	50.0	48.6	48.3	48.9	48.9	48.6	49.1	48.9	48.9	48.6	48.6	48.4	48.6	47.5	48.6	49.1	50.0	50.0	49.00	50.3	47.5	2.8
5	47.5	48.4	48.9	50.3	50.0	50.0	49.5	48.6	48.6	48.6	48.6	48.6	48.6	48.9	48.9	48.6	48.6	48.9	48.6	48.6	49.1	50.0	50.0	50.0	49.00	50.3	47.5	2.8
6 c	40.1	48.9	50.0	51.1	51.5	51.7	51.4	50.9	49.4	50.0	50.0	50.0	50.0	50.0	49.7	50.0	50.0	49.5	49.1	49.5	49.7	50.6	50.3	49.5	50.08	51.7	48.9	2.8
7	48.6	48.9	(48.6)	49.6	49.9	50.2	49.7	49.5	49.0	49.2	49.3	49.6	49.7	49.6	49.3	49.2	49.4	49.9	49.3	49.4	49.5	49.6	49.8	49.3	—	50.2	48.5	1.7
8	48.3	(48.6)	48.7	49.3	50.2	50.1	50.0	49.4	49.3	49.6	49.6	49.6	49.6	49.4	49.4	49.4	49.2	49.4	49.5	49.4	49.4	49.7	49.8	50.2	49.52	—	—	—
9 c	49.0	(48.7)	(49.2)	49.7	50.8	50.9	50.5	49.8	49.0	49.3	49.5	49.4	49.3	49.4	49.4	49.5	49.2	49.3	49.7	49.4	49.1	48.9	49.2	49.0	49.47	51.0	48.7	2.8
10 c	47.9	48.3	48.9	49.3	50.2	50.4	49.8	49.7	49.6	49.5	(49.5)	(49.5)	(49.6)	(49.7)	(49.6)	(49.4)	49.2	49.2	48.9	48.9	49.2	49.4	49.8	49.3	49.37	50.4	47.8	2.6
11	47.9	48.3	49.2	50.2	50.8	50.6	50.1	49.6	49.2	49.2	49.2	49.4	49.4	49.2	49.2	49.2	49.2	49.0	48.9	49.2	49.4	49.6	50.0	49.4	49.39	50.9	47.8	3.1
12	48.5	—	48.7	49.6	50.5	50.5	50.1	49.7	49.4	49.7	49.5	50.1	49.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13	—	—	49.2	51.1	50.5	50.7	49.8	49.7	48.9	49.2	49.6	49.5	49.2	49.6	49.2	48.7	49.0	48.9	49.2	49.3	49.4	50.0	50.1	49.4	—	—	—	—
14 d	43.4	48.6	48.4	48.4	49.6	50.2	49.6	49.1	48.3	49.2	49.4	49.6	48.9	48.9	49.6	49.6	48.7	49.7	49.7	49.5	49.6	50.0	50.6	52.0	49.55	52.5	47.0	5.5
15 d	49.8	49.5	49.5	49.8	50.6	50.7	50.5	49.5	49.0	49.3	49.5	49.6	49.6	48.9	49.7	49.4	49.5	49.6	50.5	49.4	48.9	49.7	50.0	49.3	49.66	50.7	48.9	1.8
16 d	49.1	48.3	48.7	50.4	51.9	51.6	50.0	49.4	49.8	49.7	49.4	47.4	49.6	49.3	49.1	50.4	49.1	49.6	51.0	48.9	49.5	50.6	51.6	50.1	49.78	52.1	46.8	5.8
17 d	48.9	49.4	(50.2)	51.0	50.7	50.5	50.5	49.8	49.9	49.8	49.0	49.2	49.8	50.1	49.1	49.8	49.7	50.1	49.9	50.1	50.0	50.6	50.4	50.1	49.94	51.1	48.5	2.6
18	48.6	48.4	48.4	49.6	50.6	50.2	50.2	49.6	49.3	49.6	49.6	49.6	49.6	48.5	49.0	48.9	49.8	49.2	49.8	49.8	50.1	51.1	50.6	49.8	49.58	51.3	48.3	3.0
19	49.1	48.7	48.8	49.2	49.8	50.2	50.3	50.4	49.8	49.3	49.4	49.5	49.2	48.9	49.2	49.1	49.4	49.7	50.1	50.2	49.8	49.9	50.4	50.2	49.53	50.7	48.1	2.6
20	49.5	48.8	48.6	49.5	50.5	50.6	50.4	49.6	49.5	49.5	49.6	49.6	49.6	49.2	49.4	50.0	49.3	49.5	49.6	49.5	49.6	49.8	50.0	49.6	49.62	50.7	48.6	2.1
21	48.7	48.5	48.6	49.2	50.1	50.5	50.4	49.8	49.5	49.2	49.8	49.8	49.8	49.8	49.7	49.7	50.0	49.6	49.6	49.6	49.8	50.1	50.2	49.2	49.63	50.5	48.3	2.2
22 c	48.3	48.1	48.4	49.7	50.4	50.4	50.2	49.6	49.2	49.3	49.4	49.5	49.3	49.5	49.5	49.2	49.5	49.6	49.5	49.6	49.6	49.6	49.6	49.1	49.42	50.4	47.5	2.5
23	48.6	48.8	49.2	49.8	50.0	49.9	49.9	49.6	49.2	49.4	49.5	49.6	49.6	48.9	49.6	49.5	49.6	49.7	49.6	49.6	49.6	49.7	49.7	49.8	49.47	50.2	48.6	1.6
24 c	47.9	47.6	48.3	49.2	50.0	50.3	50.2	49.8	49.0	49.2	49.2	49.4	49.6	49.5	49.6	49.6	49.7	49.6	49.6	49.6	49.6	49.5	49.8	49.2	49.37	50.4	47.5	2.9
25	48.5	48.3	48.8	49.4	49.4	49.6	48.8	48.5	48.7	48.8	48.9	49.5	49.4	49.3	49.4	49.2	47.8	48.4	49.0	49.1	49.2	49.6	50.0	49.6	49.05	50.1	47.6	2.5
26	49.4	49.4	50.0	50.1	50.5	50.3	49.9	49.6	49.4	49.6	49.7	49.9	49.2	49.0	49.6	49.4	49.4	49.4	49.4	49.3	49.5	49.6	49.8	49.3	49.61	50.5	48.3	2.2
27	48.3	(48.5)	48.3	49.0	50.0	50.7	50.5	49.8	49.8	49.6	49.7	49.8	49.7	50.0	49.6	49.6	49.5	49.5	49.6	49.8	50.0	49.9	50.0	49.5	49.60	—	—	—
28	48.9	48.8	49.2	49.8	50.4	50.4	50.0	49.3	49.2	49.5	49.6	49.6	49.3	49.3	49.6	49.6	49.6	49.5	49.9	49.2	49.3	49.6	49.7	49.2	49.52	50.5	48.5	2.0
29	48.5	48.7	(49.2)	(49.8)	50.3	50.6	50.2	48.6	49.4	49.6	49.7	49.0	50.1	49.6	49.5	48.9	49.3	48.5	48.9	49.1	49.6	49.8	50.1	49.9	49.45	50.9	48.3	2.6
30	49.2	48.2	48.9	50.2	51.0	51.0	50.1	49.2	49.1	49.4	49.8	49.7	49.8	49.7	49.6	49.4	49.5	49.4	49.6	49.3	49.6	49.6	49.6	49.2	49.59	51.3	48.2	3.1
31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
mean	50.00	49.90	50.31	51.14	51.75	51.81	51.44	50.84	50.88	50.71	50.77	50.73	50.82	50.87	50.76	50.77	50.84	50.71	50.88	50.73	50.86	51.18	51.38	50.91	50.85	—	—	—
7 c	48.44	48.32	48.96	49.90	50.58	50.74	50.42	49.96	49.24	49.46	49.52	49.56	49.56	49.62	49.56	49.56	49.50	49.42	49.36	49.40	49.44	49.60	49.74	49.86	49.54	—	—	—
7 d	49.05	48.95	49.45	50.27	50.90	50.77	50.15	49.45	49.22	49.50	49.32	48.95	49.47	49.80	49.45	49.80	49.25	49.75	50.27	49.47	49.50	50.22	50.65	50.20	49.73	—	—	—
	49.10	48.90	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 7

Declination (West)

3°00'0+.....'

December 1982.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range	
Day																													
1	48.3	48.6	49.3	50.5	51.2	50.9	50.1	49.4	49.1	49.4	50.2	49.6	49.9	49.7	49.6	49.6	49.5	49.8	49.4	49.8	49.8	49.5	49.6	48.8	49.65	51.3	48.3	3.0	
2	48.0	47.9	(48.2)	48.8	50.4	50.9	50.6	49.9	49.2	49.4	49.3	49.5	49.5	49.6	49.4	49.4	49.5	49.8	49.2	48.8	49.1	48.9	49.4	49.8	49.81	51.0	47.7	3.3	
3	48.6	48.8	49.7	50.5	50.9	51.4	50.6	49.8	49.2	49.6	49.7	49.5	49.9	49.7	49.5	49.5	49.5	49.4	49.4	49.3	49.7	50.1	49.9	49.6	49.76	51.5	48.5	3.0	
4	48.9	48.7	49.2	50.5	50.7	50.4	50.1	49.2	48.9	49.3	49.6	49.5	49.5	49.3	49.6	49.7	49.5	49.0	49.4	49.1	49.8	49.6	50.0	49.7	49.58	51.0	48.6	2.4	
5 c	48.9	48.0	47.9	48.3	49.2	50.1	50.1	49.6	48.9	49.2	49.5	49.7	49.7	49.8	49.6	49.5	49.5	49.4	49.3	49.5	49.6	49.7	50.3	50.1	49.39	50.5	47.7	2.8	
6	49.6	48.4	48.5	50.4	51.0	50.6	50.0	49.2	48.9	49.0	49.8	49.7	49.4	49.6	49.5	49.5	49.3	49.5	49.5	49.5	49.7	49.7	49.8	50.0	49.57	51.1	48.2	2.9	
7 c	49.0	49.0	49.2	49.9	50.2	50.4	50.1	49.7	49.8	49.2	49.3	49.2	49.2	49.3	49.3	49.2	49.3	49.8	49.4	49.6	49.6	49.7	49.8	49.7	49.50	50.4	48.6	1.8	
8 d	49.5	48.7	48.8	49.2	50.0	50.9	50.5	50.2	49.2	48.9	49.3	49.7	50.0	49.8	49.4	49.4	49.2	49.1	49.1	49.1	49.1	49.5	49.7	50.7	51.7	49.64	52.2	48.7	3.5
9	51.6	51.2	50.2	49.7	49.6	49.6	49.4	49.1	48.1	47.4	48.9	48.8	48.8	48.8	48.8	48.8	48.8	48.9	49.3	49.8	50.2	50.7	50.4	50.8	49.51	(50.8)	47.0	3.8	
10	49.8	49.6	49.4	50.1	50.1	50.0	50.0	49.7	49.4	49.5	49.8	49.8	49.7	49.7	49.1	49.5	49.5	49.5	49.7	50.0	49.5	49.4	50.1	50.1	49.71	50.4	48.6	1.8	
11	49.4	48.9	48.7	49.3	49.6	49.8	50.0	49.8	49.6	49.6	49.8	49.6	49.6	49.7	49.6	49.5	49.5	49.6	49.5	49.5	49.7	49.8	50.5	49.6	49.59	50.6	48.5	2.1	
12 c	48.4	47.6	47.9	49.1	49.6	49.8	49.9	49.5	49.5	49.2	49.2	49.6	49.7	49.7	49.6	49.6	49.6	49.5	49.6	49.6	49.6	49.7	49.8	49.7	49.38	50.0	47.5	2.5	
13	49.2	48.9	49.3	49.6	49.6	49.8	49.8	49.9	49.2	49.2	49.5	49.6	48.8	48.5	49.3	49.2	48.7	49.7	48.8	49.2	49.4	50.3	50.9	50.4	49.49	51.0	48.4	2.6	
14 d	49.2	48.5	49.2	49.4	49.8	49.8	49.4	49.2	48.5	48.8	48.7	49.4	47.7	48.8	48.4	49.2	49.7	47.9	46.4	48.6	49.5	52.1	51.8	53.0	49.29	53.2	46.1	7.1	
15 d	52.8	52.8	51.9	52.5	52.2	51.4	50.4	49.4	49.2	48.9	49.5	49.7	49.6	49.7	49.4	48.4	49.1	49.8	48.2	49.7	48.5	49.2	51.9	52.7	50.27	53.4	48.0	5.4	
16 d	51.6	52.4	51.8	51.7	51.8	50.9	50.5	49.2	49.1	49.4	49.7	48.7	49.2	49.4	49.6	49.5	49.5	49.2	48.9	49.4	49.5	50.4	50.9	49.5	50.07	—	—	—	
17 d	49.2	49.5	49.9	50.2	50.4	50.1	49.8	49.4	48.9	48.9	49.6	49.4	49.3	49.4	49.4	49.7	49.2	49.2	50.0	51.0	49.7	49.9	50.1	50.3	49.69	52.1	48.2	3.9	
18	49.8	49.2	49.6	50.4	50.2	50.0	50.1	49.7	49.1	49.6	50.1	49.2	49.2	49.2	49.3	49.0	49.9	50.0	49.8	50.1	50.0	50.2	50.0	50.3	50.7	49.81	50.9	48.4	2.5
19	50.0	49.6	49.8	49.7	50.1	49.9	50.0	49.9	49.9	49.1	49.2	49.5	49.6	49.6	49.6	49.7	49.5	49.4	49.6	49.6	50.0	50.4	50.1	50.4	49.72	50.9	48.7	2.2	
20	50.0	48.9	48.6	49.0	49.6	49.7	49.3	49.5	49.0	49.4	49.0	49.7	49.9	49.8	49.7	49.6	49.6	49.6	49.7	49.7	49.7	49.7	50.0	49.9	49.52	50.1	48.3	1.8	
21 c	49.2	48.1	48.7	49.5	49.8	49.9	49.9	49.2	48.9	49.2	49.5	49.5	49.6	49.7	49.7	49.6	49.6	49.6	49.6	49.7	49.8	49.8	49.8	49.7	49.48	50.1	48.1	2.0	
22	49.4	49.0	49.4	49.2	49.2	49.6	49.9	49.4	49.1	49.2	49.4	49.5	49.5	49.6	49.7	49.5	49.6	49.4	49.4	49.4	50.1	50.0	49.9	49.8	49.51	50.2	48.9	1.8	
23 c	48.9	48.2	48.5	49.2	49.7	50.4	50.5	49.8	48.8	49.1	49.2	49.8	49.8	49.7	49.6	49.6	49.6	49.7	49.6	49.6	49.9	50.1	50.4	50.1	49.57	50.5	48.2	2.8	
24	48.9	48.0	48.5	49.2	49.7	49.9	50.0	49.6	48.9	48.9	49.1	49.6	49.3	49.5	49.5	49.4	49.5	49.6	49.6	49.8	49.7	49.8	50.1	50.0	49.42	50.1	48.1	2.0	
25	49.2	48.5	48.9	50.1	50.5	50.4	50.0	49.1	48.2	48.4	48.6	49.4	49.5	49.2	49.6	49.2	49.5	49.6	49.5	49.5	49.9	50.1	50.0	50.0	49.45	50.5	48.2	2.8	
26	49.4	49.7	50.1	50.4	50.0	49.9	49.5	49.3	49.2	49.5	49.6	49.6	49.6	49.7	49.2	49.4	49.5	49.6	49.5	49.5	48.5	49.7	50.0	49.9	49.60	50.6	48.4	2.2	
27	49.4	49.1	50.8	51.9	50.6	50.8	50.2	50.0	49.2	49.6	49.8	49.8	49.8	49.8	49.5	49.9	50.0	49.5	49.6	49.4	49.6	49.7	50.0	49.9	49.8	49.90	52.1	49.1	3.0
28	49.1	48.7	49.0	49.8	50.4	50.8	50.4	50.1	49.4	49.4	49.6	49.7	49.6	49.5	49.6	48.7	49.8	49.8	49.1	48.7	49.2	49.7	50.0	50.0	49.62	50.9	48.6	2.8	
29	49.6	48.6	48.7	49.6	49.8	49.8	49.6	49.7	49.2	49.2	49.7	49.6	49.7	49.8	49.8	49.6	49.6	49.6	49.4	49.6	49.7	49.8	49.8	—	—	50.0	48.5	1.5	
30	—	—	—	—	—	—	—	—	—	—	49.5	49.6	49.6	49.8	49.6	49.6	49.5	49.4	49.7	49.8	49.6	49.5	49.2	49.6	50.4	—	50.6	48.7	1.9
31	49.6	49.8	50.0	(50.9)	50.4	50.8	50.2	49.7	48.8	49.2	49.2	49.6	49.7	49.8	49.6	49.6	49.5	49.4	49.7	49.8	49.6	49.5	49.2	49.5	49.67	—	—	—	
mean.	49.48	49.08	49.31	49.95	50.21	50.26	50.03	49.58	49.06	49.16	49.43	49.52	49.48	49.53	49.41	49.46	49.46	49.38	49.31	49.56	49.61	49.89	50.18	50.16	49.60	—	—	—	
" c	48.88	48.18	48.44	49.20	49.70	50.12	50.10	49.56	49.08	49.18	49.34	49.56	49.60	49.64	49.56	49.50	49.52	49.50	49.50	49.60	49.72	49.80	50.02	49.80	49.46	—	—	—	
" d	50.46	50.38	50.32	50.60	50.84	50.62	50.12	49.48	48.98	48.98	49.36	49.86	49.16	49.38	49.24	49.24	49.34	48.94	48.82	49.56	49.34	50.26	51.08	51.06	49.79	—	—	—	
	51.00	51.02																											

Table 8

Declination (West) 3°00'0" +

January 1933.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Mix	Min	Range	
Day																													
1 d	49.3	49.8	50.5	51.3	51.2	50.5	49.8	49.3	49.3	49.2	48.8	49.3	49.7	49.5	49.2	48.9	49.7	50.4	49.5	49.5	50.7	49.1	49.4	50.2	49.75	51.5	48.4	3.1	
2	49.5	48.5	49.7	50.7	50.5	51.0	50.2	(49.6)	49.4	49.4	49.3	49.6	49.3	49.4	49.7	49.8	49.9	49.9	49.8	49.8	50.1	49.6	50.3	50.2	49.82	51.3	48.3	3.0	
3	49.4	48.8	49.8	51.3	51.3	50.4	50.3	49.9	49.4	49.1	48.9	49.3	49.3	49.3	49.4	49.6	49.7	49.8	49.8	49.8	49.9	49.8	49.9	49.6	49.74	51.4	48.7	2.7	
4 c	48.7	48.4	48.3	48.8	50.1	50.8	50.7	50.2	49.7	49.3	49.4	49.5	49.5	49.6	49.5	49.7	49.6	49.6	49.8	49.8	49.8	49.9	50.0	50.1	49.7	49.62	50.9	48.1	2.8
5 c	49.0	48.4	(48.9)	49.7	50.5	50.8	50.7	50.0	49.5	49.1	49.2	49.2	49.4	49.4	49.4	49.6	49.6	49.7	49.7	49.7	49.8	49.9	50.0	50.1	49.9	49.65	50.9	48.4	2.5
6	49.2	47.7	48.7	50.4	51.7	51.5	51.1	50.9	49.0	49.1	49.5	50.0	49.8	49.1	47.9	49.1	49.6	50.1	50.1	50.5	50.7	50.2	50.4	50.0	49.85	51.8	47.5	4.3	
7	49.2	48.7	49.2	50.1	50.7	51.2	51.0	50.2	49.2	49.3	49.5	49.6	49.6	49.7	49.5	49.6	49.6	49.4	49.4	49.8	50.0	50.2	50.4	49.8	49.74	51.5	48.3	3.2	
8	48.7	48.5	48.7	49.6	50.7	50.8	49.8	49.3	49.5	49.6	49.5	49.6	49.8	49.2	49.6	49.6	49.7	49.8	50.2	50.0	50.0	50.1	50.1	49.8	49.64	50.9	48.4	2.5	
9	48.5	48.1	48.3	49.2	49.8	50.0	49.8	49.4	49.2	49.2	49.4	49.4	49.6	49.2	49.6	49.6	49.8	49.6	49.6	49.8	49.9	49.9	50.1	50.2	49.46	50.2	48.0	3.2	
10 c	49.1	48.3	48.9	50.4	50.9	51.4	51.0	49.8	48.7	49.1	49.5	49.6	49.7	49.7	49.7	49.6	49.6	49.6	49.6	49.8	49.9	49.9	49.6	49.5	49.62	50.5	48.3	3.2	
11 c	47.8	47.7	48.7	49.8	50.5	50.7	50.6	49.7	48.8	49.0	49.3	49.4	49.7	49.7	49.7	49.7	49.5	49.6	49.5	49.5	49.5	49.6	49.8	49.4	49.46	50.8	47.5	3.3	
12	48.2	48.2	48.8	50.1	50.3	50.1	50.0	49.3	48.8	48.8	49.0	49.4	49.4	49.4	49.5	49.6	49.6	49.6	49.5	49.5	49.6	49.7	49.9	49.7	49.2	49.40	50.4	47.8	2.6
13	47.8	48.2	48.9	49.6	49.7	49.7	49.7	49.7	49.7	49.7	49.6	49.5	49.4	49.2	50.1	50.4	49.5	49.5	49.3	49.2	48.1	49.5	49.8	49.8	49.44	50.4	47.8	2.6	
14	48.6	49.4	50.4	51.1	50.9	50.7	49.7	48.5	48.4	48.6	49.5	50.3	50.3	49.6	48.8	48.4	48.4	48.5	48.9	48.7	48.9	49.0	48.9	49.0	49.0	49.81	51.1	48.3	2.8
15	49.0	49.1	(49.6)	50.1	49.9	50.0	50.2	50.2	50.0	50.0	49.8	49.7	49.6	49.6	49.6	49.5	49.5	49.7	49.6	49.7	50.0	50.0	50.0	50.9	49.5	49.80	51.0	48.4	2.6
16	48.4	48.2	49.3	50.6	50.8	50.2	49.2	48.8	48.3	48.7	49.4	50.2	50.0	49.8	50.0	49.6	49.7	49.8	49.7	49.8	49.7	49.6	49.5	49.1	49.43	51.0	48.1	2.9	
17	48.5	47.7	48.8	52.1	52.3	52.3	51.1	49.6	48.7	48.2	49.1	49.4	49.4	48.6	49.6	49.7	49.8	49.8	49.6	49.6	49.5	49.4	49.3	48.3	49.60	52.7	47.1	5.6	
18	47.1	48.1	50.0	51.9	51.2	50.0	48.9	48.5	48.4	49.0	48.4	49.4	49.4	49.7	49.7	49.7	49.7	49.6	49.5	49.6	49.9	49.7	49.7	48.7	49.41	52.0	47.1	4.9	
19 d	47.4	47.2	48.4	50.0	51.2	50.6	49.4	48.2	48.3	48.7	49.1	49.2	49.2	49.4	49.8	49.9	50.8	48.1	48.2	49.7	51.0	50.0	49.8	50.5	49.38	51.4	47.0	4.4	
20	50.0	49.3	49.5	50.2	50.1	49.9	49.8	48.5	48.5	48.6	48.8	49.2	49.2	49.5	49.6	49.6	49.7	49.8	49.6	49.6	49.8	49.9	49.9	49.2	49.49	50.2	48.4	1.8	
21 c	48.3	47.8	48.9	50.3	51.5	50.9	50.2	49.1	48.7	48.7	48.9	49.2	49.1	49.4	49.1	49.2	49.4	49.4	49.5	49.4	49.6	49.8	49.7	49.7	49.7	49.41	51.6	47.7	3.9
22 d	48.1	47.6	48.4	50.1	52.1	52.1	50.9	48.8	48.9	48.9	49.1	49.4	49.4	49.4	49.2	48.8	47.6	48.2	48.2	49.3	50.0	49.3	49.8	50.3	49.9	49.40	52.6	47.5	5.0
23	48.7	48.6	49.7	51.0	51.8	52.0	51.2	49.9	48.8	49.6	49.6	50.1	49.8	49.4	49.5	49.1	49.1	49.3	49.3	48.9	49.0	48.9	49.9	50.1	49.72	52.3	48.2	4.1	
24	49.3	49.2	49.4	50.6	50.6	51.1	50.9	49.8	49.4	49.1	49.7	50.1	48.2	49.3	49.7	49.6	49.8	49.1	49.3	48.9	49.1	49.3	49.6	48.9	49.55	51.9	47.9	4.0	
25	48.3	47.9	(48.5)	49.2	49.5	50.0	50.1	(49.8)	49.3	49.4	49.9	49.7	49.4	49.7	48.4	47.9	48.6	49.4	49.0	49.1	49.3	50.1	50.0	50.3	49.28	50.5	47.7	2.8	
26	48.3	48.9	48.9	50.4	49.8	50.0	50.5	50.5	49.5	49.4	49.3	49.8	49.5	(49.5)	48.6	48.5	48.5	49.1	49.0	49.1	49.8	50.0	50.1	50.4	49.50	50.9	48.1	2.8	
27 d	50.0	50.4	50.1	49.3	50.6	49.7	50.3	50.2	49.8	49.7	50.2	49.4	50.2	49.7	49.7	48.9	49.1	49.4	48.9	48.9	49.1	49.6	50.3	50.1	49.78	51.0	47.8	3.2	
28 d	49.3	49.5	49.7	50.4	49.8	49.4	49.3	49.5	49.5	50.0	49.1	50.1	49.9	50.2	50.0	49.9	50.6	48.8	49.7	49.1	49.1	49.6	49.9	48.7	49.68	51.5	48.5	3.0	
29	48.5	48.8	49.4	50.3	50.8	50.6	50.1	49.6	49.4	49.5	49.6	50.2	50.1	49.9	49.7	49.6	49.4	49.4	49.4	49.7	49.9	50.2	49.6	49.3	49.71	51.0	48.4	2.6	
30	48.4	48.3	49.0	49.4	49.6	49.5	50.2	50.0	49.9	50.2	49.8	49.9	49.9	50.1	50.3	49.5	49.3	49.7	49.6	49.5	49.5	49.5	50.0	48.9	49.60	50.3	48.0	2.3	
31	48.7	48.8	49.3	50.4	51.6	51.7	50.9	49.7	48.6	49.5	49.8	49.7	49.7	49.8	49.4	49.5	49.5	49.8	49.6	49.5	49.6	49.6	49.6	48.7	49.71	52.2	47.1	5.1	
mean	48.70	48.52	49.18	50.27	50.71	50.63	50.24	49.50	49.12	49.22	49.35	49.63	49.54	49.52	49.45	49.40	49.47	49.46	49.46	49.55	49.69	49.76	49.89	49.58	49.58	—	—	—	—
" c	48.58	48.12	48.74	49.80	50.70	50.92	50.64	49.76	49.08	49.04	49.26	49.36	49.48	49.56	49.46	49.52	49.56	49.60	49.62	49.58	49.68	49.80	49.86	49.52	49.55	—	—	—	—
" d	48.82	48.90	49.42	50.22	50.98	50.46	49.94	49.20	49.16	49.30	49.26	49.48	49.68	49.64	49.58	49.58	49.56	49.48	49.32	49.44	49.34	49.62	49.94	49.68	49.58	—	—	—	—
	49.20	48.94																											

Table 9

Declination (West)

3°00'0 +

February 1933.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range
Day	47.1	46.9	47.9	49.4	49.9	49.9	49.8	49.3	49.4	49.4	49.6	49.7	49.9	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.6	49.6	49.3	48.1	49.27	50.0	46.4	3.6
1	46.4	47.7	49.4	51.6	53.0	53.2	52.6	51.3	50.6	49.9	50.6	49.4	49.7	49.1	49.7	49.7	49.1	48.1	48.6	49.2	49.6	49.7	49.8	48.8	49.87	53.6	46.4	7.2
2	47.8	47.3	47.8	48.8	49.7	49.3	49.7	49.5	49.4	49.4	49.5	49.3	49.8	49.7	49.6	49.8	49.6	49.6	49.6	49.6	49.7	49.7	50.0	49.6	49.85	50.0	47.2	2.8
3	48.0	48.3	48.6	49.1	49.7	50.2	(50.6)	50.6	50.2	49.5	49.7	49.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6 c	—	—	—	48.3	49.1	49.8	50.2	49.9	50.0	49.8	49.8	49.7	49.7	49.5	49.5	49.5	49.4	49.4	49.4	49.5	49.5	49.7	49.8	48.8	—	—	—	—
7	48.0	48.0	48.2	48.8	49.5	49.9	49.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8	—	—	—	—	—	—	—	—	—	50.3	50.5	50.2	49.9	49.8	49.6	49.5	49.6	49.5	49.6	49.6	49.6	49.7	50.3	50.1	49.9	—	—	—
9	49.6	49.5	50.2	50.6	50.8	50.8	50.4	50.3	49.9	50.2	50.2	50.2	49.9	49.9	49.9	49.7	49.8	49.8	49.6	49.5	49.4	50.0	50.0	49.5	49.92	50.9	48.9	2.0
10	48.9	49.3	50.4	51.3	51.3	50.8	50.1	49.7	49.5	49.8	49.9	49.9	49.8	49.7	49.8	49.7	49.5	49.6	49.6	49.6	49.6	49.7	50.0	49.0	49.87	51.3	48.0	3.3
11 c	48.1	48.8	49.5	51.7	52.2	51.2	50.0	49.7	49.1	49.2	49.4	49.5	49.7	49.8	49.7	49.6	49.8	49.6	49.4	49.5	49.6	49.8	49.5	48.1	49.69	52.4	46.9	5.4
12	46.9	47.7	—	—	—	—	—	—	—	—	—	49.4	49.6	—	—	—	50.2	50.2	—	—	—	—	49.6	48.5	—	—	—	—
13 c	47.9	48.6	50.2	(51.5)	(52.0)	51.6	50.5	49.4	48.8	49.0	49.4	49.7	50.0	50.5	50.5	50.4	50.4	50.5	50.4	(50.4)	(50.4)	(50.6)	(50.8)	49.0	—	—	—	—
14	(48.5)	(48.7)	—	50.8	52.0	52.1	50.8	49.5	48.4	48.7	49.1	49.6	49.7	48.9	49.5	49.9	49.6	49.8	49.7	50.3	51.1	50.0	49.6	48.8	—	—	—	—
15	48.1	48.5	49.5	50.0	50.0	49.9	49.9	49.2	48.8	49.3	49.7	49.8	49.6	49.1	49.6	49.6	49.6	49.7	49.6	49.7	49.7	49.8	49.4	48.7	49.42	50.5	48.1	2.4
16 c	48.3	48.6	49.1	50.4	50.6	50.1	49.3	49.1	49.5	49.9	49.6	49.7	49.7	49.7	49.8	49.6	49.6	49.8	49.7	49.8	49.7	49.6	49.5	49.3	49.58	50.7	48.2	2.5
17 c	48.9	49.0	49.9	51.3	51.8	51.5	50.8	49.9	49.2	(49.1)	49.6	(49.6)	49.6	49.6	49.7	49.6	49.6	49.6	49.6	49.6	49.6	49.6	49.6	48.7	49.79	51.8	48.8	3.0
18	48.3	48.7	49.5	49.9	50.9	50.9	50.3	50.0	49.4	49.4	49.5	49.6	49.6	49.6	49.6	49.6	49.5	49.5	49.3	49.6	49.4	49.6	49.8	49.5	49.62	51.2	48.3	2.9
19 d	49.3	49.6	50.7	52.0	51.7	51.7	50.8	49.6	49.2	49.1	49.0	49.8	50.0	50.6	49.6	49.3	49.0	49.4	49.8	52.5	49.6	50.0	50.2	50.1	50.11	53.5	48.8	4.7
20	53.5	52.6	52.0	51.1	51.2	51.2	49.6	49.9	49.9	50.4	49.6	50.4	50.4	48.0	50.0	49.8	49.6	49.3	49.0	49.5	49.2	49.6	49.8	49.8	50.22	53.5	47.9	5.5
21 d	50.8	49.9	50.0	51.2	53.2	51.7	49.9	49.6	49.6	49.9	49.9	49.6	50.5	49.6	49.7	49.0	49.5	49.5	48.5	49.9	49.1	49.2	50.5	51.9	50.05	53.5	47.6	5.9
22 d	51.2	53.5	52.3	52.2	50.8	50.5	50.3	49.5	48.7	47.8	49.9	50.8	49.5	49.3	49.1	49.5	49.3	49.3	50.2	49.9	49.0	49.5	49.9	50.1	50.07	52.5	47.8	5.7
23 d	50.6	49.7	50.1	51.1	50.8	50.9	50.0	49.3	48.4	49.4	50.0	49.7	49.9	50.0	48.1	48.7	49.3	49.7	49.5	49.0	50.6	50.5	50.0	50.0	49.77	52.4	47.7	4.6
24 d	51.1	49.5	51.1	50.8	50.8	50.6	49.9	49.9	49.1	50.4	49.1	50.8	48.4	50.2	49.9	49.9	49.3	50.3	49.3	48.0	49.1	49.5	52.6	49.8	49.97	53.4	47.4	6.0
25	50.0	50.2	50.9	51.4	51.3	50.6	50.0	49.5	49.3	49.3	49.6	49.3	50.8	50.0	50.0	49.8	49.8	49.8	49.8	50.2	49.6	49.3	50.2	50.0	50.05	51.6	48.9	2.7
26	50.6	50.8	—	—	—	—	49.6	49.6	49.1	49.3	49.4	49.1	49.8	50.1	50.0	50.0	49.6	49.9	49.6	49.4	49.3	50.4	51.8	49.2	—	—	—	—
27	49.2	49.8	51.1	52.1	52.2	51.3	50.6	49.1	48.7	49.3	49.9	49.6	49.6	50.0	49.9	49.7	49.6	49.5	49.4	49.1	49.1	49.6	50.0	49.3	49.92	52.9	48.7	4.2
28	49.6	49.8	50.5	52.0	52.8	52.1	50.8	50.0	49.4	49.1	49.6	49.8	49.8	49.8	49.8	49.8	49.8	49.6	49.4	49.5	49.3	49.5	49.1	48.1	49.94	52.9	47.3	5.6
29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
mean	49.81	49.42	50.10	50.99	51.32	50.98	50.26	49.71	49.82	49.49	49.69	49.79	49.80	49.65	49.64	49.58	49.49	49.43	49.45	49.66	49.51	49.62	49.36	49.39	49.81	—	—	—
" c	48.30	48.75	49.67	51.22	51.65	51.10	50.15	49.52	49.15	49.30	49.50	49.62	49.75	49.90	49.92	49.80	49.85	49.87	49.77	49.82	49.82	49.87	49.72	48.87	49.78	—	—	—
" d	50.60	50.44	50.84	51.46	51.46	51.08	50.18	49.58	49.00	49.82	49.58	50.04	49.66	49.94	49.23	49.28	49.28	49.44	49.46	49.92	49.48	49.54	50.64	50.26	49.99	—	—	—
	51.28	51.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 10

Declination (West)

3°00'0+.....'

March 1938.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range	
Day	47.2	47.0	49.3	51.3	52.8	52.6	51.5	50.6	49.9	49.7	49.6	49.9	49.9	49.8	49.6	49.6	49.6	49.3	49.2	49.4	49.8	49.6	49.1	48.2	49.81	53.2	47.0	6.2	
1	47.9	47.4	48.7	49.9	51.7	52.1	51.7	50.9	50.0	49.7	49.9	49.8	49.8	49.6	49.6	49.6	49.6	49.6	49.6	49.8	49.9	49.5	49.9	48.8	49.79	52.2	47.4	4.8	
2	48.2	48.2	48.5	50.0	51.5	52.3	51.7	51.0	49.8	49.4	49.6	49.9	50.0	49.8	50.1	49.5	49.0	48.8	49.1	49.0	49.4	49.3	49.8	49.4	49.72	52.3	48.1	4.2	
3	49.7	49.1	(48.9)	50.8	51.8	51.9	51.6	51.0	50.0	49.9	50.1	49.9	49.9	49.8	49.8	49.8	49.7	49.6	49.4	49.3	49.4	49.6	50.0	49.6	50.02	52.2	48.5	3.7	
4	48.5	47.8	48.0	49.8	51.8	52.4	52.3	51.1	49.5	49.3	49.6	49.8	49.7	49.8	49.7	49.8	49.7	49.6	49.6	49.6	49.5	49.4	49.3	49.0	47.4	49.68	52.4	46.8	5.6
5 c	46.8	47.4	(48.5)	50.5	52.2	52.9	52.2	51.1	49.9	49.6	49.7	49.8	49.8	49.8	49.8	50.1	50.0	50.1	49.3	49.3	49.5	49.6	49.7	48.7	49.86	52.9	46.8	6.1	
6 c	47.5	47.3	47.9	49.4	51.1	51.7	51.4	50.6	49.9	49.3	49.6	49.6	49.6	49.6	49.6	49.6	49.6	49.5	49.3	49.3	49.5	49.6	49.7	48.7	49.86	52.9	46.8	4.8	
7 c	47.1	46.2	46.6	48.7	50.8	51.7	51.7	51.1	50.2	49.5	49.8	49.8	49.8	49.8	49.6	49.3	49.0	49.1	49.1	49.3	49.2	49.3	49.4	49.2	49.89	51.8	46.0	5.8	
8	48.4	48.3	48.6	50.0	52.1	52.6	52.9	52.0	50.4	49.7	49.9	50.0	49.9	49.7	49.6	49.5	49.5	49.3	49.3	49.3	49.3	49.4	49.6	49.9	49.89	52.9	48.2	4.7	
9 c	47.8	47.5	47.8	50.0	52.1	52.6	51.8	50.8	49.5	49.2	49.6	49.8	49.8	49.7	49.7	49.7	49.6	49.4	49.2	49.4	49.3	49.8	50.1	49.9	48.3	49.72	52.9	46.3	6.1
10	47.0	47.4	48.9	51.2	51.4	51.6	51.2	50.8	49.8	49.2	50.0	49.8	49.8	49.7	48.9	49.3	49.5	49.0	49.4	49.6	49.8	49.9	49.3	49.8	48.4	49.64	51.7	46.5	5.2
11	47.8	46.6	(47.2)	49.8	51.2	51.4	51.1	50.2	49.6	49.1	49.5	50.0	50.0	50.1	49.9	49.7	49.9	49.6	49.5	49.2	49.8	49.9	50.0	48.7	49.58	51.5	46.5	5.0	
12	47.8	47.3	(48.5)	49.4	50.4	51.2	50.8	49.9	49.1	49.0	49.7	49.8	49.7	49.6	49.7	49.3	49.6	49.0	49.0	49.5	49.6	49.8	49.6	48.7	47.5	49.35	51.2	46.3	4.9
13	46.3	46.1	47.7	50.0	52.0	53.4	52.3	51.4	49.5	49.5	50.0	50.1	49.7	49.8	50.0	50.1	49.6	49.7	49.6	49.8	49.6	49.6	49.8	48.8	49.77	53.5	46.0	7.5	
14	47.8	46.8	48.0	49.8	51.8	52.9	52.7	51.6	49.9	49.3	49.5	49.6	49.4	49.8	49.9	49.8	49.7	49.6	49.5	49.4	49.4	49.6	49.8	48.4	49.78	53.1	46.7	6.4	
15	47.1	46.9	47.9	49.6	51.1	51.8	51.9	50.8	49.8	49.6	49.7	49.8	49.9	49.8	49.8	49.7	49.9	49.7	49.6	49.6	49.6	49.9	50.2	49.1	49.70	52.1	46.9	5.2	
16 c	47.6	46.4	46.7	49.2	51.3	52.3	52.0	51.0	49.6	49.0	49.5	49.8	49.9	49.4	49.5	49.1	49.4	49.3	49.3	49.3	49.4	49.7	49.5	48.6	49.45	52.3	46.3	6.0	
17	47.1	46.0	47.4	50.2	52.4	53.8	52.9	51.3	49.7	49.5	50.2	50.2	49.6	49.3	49.6	49.3	47.4	49.4	48.9	48.9	48.9	48.9	48.5	49.2	49.50	53.5	46.0	7.5	
18 d	49.1	47.0	48.1	50.2	51.4	52.1	52.4	51.3	50.0	49.8	50.0	50.0	49.3	50.0	49.5	49.9	49.1	48.7	48.8	49.3	49.5	50.6	50.5	50.0	49.88	52.6	47.0	5.6	
19 d	49.3	48.7	49.6	52.3	52.8	52.8	52.2	50.5	49.6	50.0	49.9	49.1	49.9	49.3	49.7	49.5	49.2	49.2	48.1	48.4	50.1	50.2	49.0	48.9	49.98	53.1	48.0	5.1	
20 d	47.5	46.8	47.8	49.9	51.1	52.7	51.8	51.2	50.4	49.6	46.3	48.9	49.9	50.0	50.0	49.9	49.9	49.2	49.3	49.3	49.6	49.4	49.8	49.5	49.55	52.8	46.1	6.7	
21	48.8	49.1	(49.7)	50.6	51.7	52.9	53.6	51.9	50.6	50.3	49.8	49.8	49.1	49.3	49.4	48.8	49.7	49.5	49.8	49.6	49.6	50.0	50.0	48.4	50.08	53.6	46.9	6.7	
22	46.9	46.8	47.9	49.9	52.3	52.7	51.8	50.8	50.3	49.5	49.9	49.0	49.9	49.8	49.6	49.2	48.6	49.2	48.8	49.0	49.2	50.2	50.3	(50.3)	49.64	52.8	46.6	6.2	
23 d	47.7	47.5	48.6	51.0	52.8	52.9	53.0	50.5	49.9	50.2	50.3	48.9	49.7	48.9	49.3	49.9	49.5	49.0	48.0	48.6	49.3	48.8	49.8	50.2	50.0	49.81	53.5	47.4	6.1
24 d	50.1	49.3	49.4	50.7	52.0	53.8	52.9	52.9	51.8	49.8	49.8	49.0	50.0	49.9	49.9	49.5	49.8	49.6	49.6	49.6	49.6	50.1	49.8	50.0	49.0	50.30	53.3	47.6	5.8
25	47.5	46.9	(48.2)	50.7	51.9	52.4	52.2	51.4	50.5	49.2	50.4	50.0	49.8	49.9	49.8	49.8	49.5	49.1	49.3	48.9	49.0	49.3	49.3	48.1	49.72	52.6	46.2	6.4	
26	46.2	45.4	46.2	48.7	50.4	51.6	52.6	52.4	51.3	50.2	49.9	50.5	50.7	48.7	48.8	49.2	49.2	48.8	48.2	49.1	48.8	49.4	49.9	48.6	49.37	52.8	46.3	7.5	
27	47.5	46.8	47.2	49.5	51.9	52.6	52.3	50.8	49.5	48.9	49.5	49.4	49.6	49.3	49.3	48.5	49.3	49.6	49.5	49.8	49.6	50.1	49.0	49.0	49.52	52.7	46.7	6.0	
28	47.5	46.7	48.0	50.8	53.5	54.4	53.6	51.8	50.6	50.1	49.3	50.0	50.2	50.1	49.9	49.5	49.2	49.0	49.2	49.9	49.3	49.5	48.9	48.5	49.98	54.4	46.4	8.0	
29	46.7	46.6	48.1	50.6	52.5	53.8	52.8	51.8	51.0	49.8	49.6	49.9	49.9	49.5	49.4	48.7	48.8	49.2	49.6	49.8	49.5	49.8	49.8	48.6	49.80	53.3	46.3	7.0	
30	47.0	46.3	47.4	49.6	51.3	52.2	52.7	51.9	51.1	50.1	50.5	50.5	49.8	49.7	49.7	49.3	49.2	49.0	49.0	49.5	49.2	49.5	49.5	48.9	49.70	52.8	46.3	6.5	
mean	47.71	47.21	48.11	50.13	51.76	52.48	52.18	51.17	50.09	49.56	49.71	49.75	49.81	49.65	49.66	49.51	49.37	49.27	49.24	49.41	49.46	49.68	49.63	48.84	49.72	—	—	—	—
" c	47.66	47.54	48.18	49.86	51.66	52.28	52.14	51.12	49.90	49.50	49.70	49.80	49.78	49.74	49.70	49.74	49.72	49.60	49.42	49.50	49.52	49.60	49.72	48.66	49.75	—	—	—	—
" d	48.02	47.20	48.32	50.72	52.24	52.76	52.46	50.88	49.90	49.80	50.10	49.44	49.68	49.36	49.64	49.56	48.76	48.90	48.64	49.08	49.30	49.34	49.70	49.30	49.75	—	—	—	—
	48.74	47.86																						49.68					

Table 11

Declination (West) 3°00'0" +

April 1933.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range	
Day	47.0	45.6	45.9	48.5	51.1	52.0	52.3	51.6	50.9	50.0	49.8	50.1	49.8	49.5	49.5	49.3	49.3	49.2	49.0	49.1	49.4	49.9	49.2	48.3	49.45	52.4	45.8	7.1	
1	47.0	45.6	45.9	48.5	51.1	52.0	52.3	51.6	50.9	50.0	49.8	50.1	49.8	49.5	49.5	49.3	49.3	49.2	49.0	49.1	49.4	49.9	49.2	48.3	49.45	52.4	45.8	7.1	
2	47.2	46.3	47.7	49.8	52.0	52.9	53.3	52.3	50.9	49.6	49.6	49.7	49.6	49.7	49.6	49.5	49.4	49.4	49.2	49.1	49.6	49.9	49.7	49.4	49.81	53.4	46.2	7.2	
3	48.0	47.5	48.3	49.8	51.4	52.1	51.4	50.6	50.7	49.7	50.5	50.7	47.6	50.1	49.9	49.3	49.0	48.9	48.6	48.4	48.4	49.1	48.7	48.2	49.45	52.2	47.4	4.8	
4	47.6	47.8	49.7	51.4	51.8	51.8	51.4	50.7	50.2	48.9	50.2	50.1	50.2	50.2	50.1	49.8	49.3	48.8	48.4	48.7	48.7	49.1	48.8	47.9	49.65	51.8	47.5	4.3	
5	47.6	47.8	(49.3)	51.4	52.6	52.7	53.0	51.9	51.1	49.5	50.3	50.4	50.5	50.0	49.8	49.9	49.4	49.1	49.2	49.3	49.6	50.8	49.9	48.2	50.14	53.0	46.9	6.1	
6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.2	
7	46.9	46.9	48.6	50.6	52.8	53.5	53.3	51.8	50.1	49.7	50.1	50.6	50.4	49.3	49.7	49.5	49.2	48.4	48.8	49.4	49.9	50.4	49.3	48.3	49.90	53.9	46.7	7.2	
8	48.3	48.9	50.5	51.6	52.4	52.8	52.5	51.5	50.5	50.0	49.8	50.1	50.1	50.1	49.9	49.3	48.4	48.9	49.6	49.6	49.2	49.2	49.2	47.8	50.01	52.8	46.3	6.5	
9	46.9	46.4	48.0	49.7	51.2	52.0	51.8	50.7	49.7	49.4	47.8	49.4	49.9	49.8	49.7	49.3	49.3	49.4	49.5	49.7	49.8	49.8	49.0	47.8	49.46	52.2	45.8	6.4	
10	46.6	46.6	48.0	49.7	51.9	52.8	53.1	51.9	50.0	49.6	49.6	49.4	49.4	49.8	49.7	49.4	49.6	49.6	49.6	49.7	49.9	49.9	49.2	47.7	49.70	53.2	46.3	6.9	
11 c	46.3	46.1	48.1	50.8	52.1	52.7	52.7	51.5	50.2	49.3	49.7	49.7	49.7	49.9	49.8	49.6	49.6	49.5	49.4	49.4	49.5	49.8	49.4	48.0	49.70	52.9	46.0	6.8	
12 c	46.8	46.2	(47.7)	50.5	52.3	52.5	51.8	50.6	49.8	49.2	49.5	49.8	49.8	49.8	49.8	49.7	49.6	49.6	49.5	49.3	49.6	49.7	49.2	47.9	49.59	52.6	46.2	6.4	
13 c	46.8	46.9	49.1	51.5	53.1	53.6	52.9	51.5	50.0	49.3	49.7	49.7	49.8	49.7	49.7	49.7	49.7	—	—	—	—	—	—	—	—	—	—	—	—
14	45.6	45.2	46.9	50.0	51.9	52.3	51.8	50.8	49.8	49.1	49.4	49.8	49.7	49.7	49.7	49.5	49.5	48.2	48.2	48.2	48.9	49.1	48.1	47.5	49.15	—	—	—	—
15 d	46.5	46.9	48.9	50.8	51.8	53.1	53.1	51.7	50.3	49.0	49.5	49.7	50.3	50.1	50.1	49.5	48.3	48.7	48.3	47.7	47.0	48.4	48.7	47.3	49.42	53.5	46.5	7.0	—
16 d	47.9	49.0	50.3	52.1	53.1	53.7	52.7	51.5	49.9	49.7	50.3	50.0	50.1	49.9	49.2	49.0	49.5	48.7	49.0	49.4	48.4	47.9	47.8	47.4	49.85	53.8	46.9	6.9	—
17 d	48.2	50.1	50.2	51.4	52.3	51.7	51.2	51.3	49.6	49.9	50.0	49.7	49.8	47.8	50.2	49.5	48.3	47.9	48.6	49.1	48.9	49.0	48.9	47.8	49.68	52.5	47.3	5.2	—
18	48.5	49.3	50.8	51.5	51.6	52.7	51.2	51.2	50.5	49.6	49.9	50.2	49.5	49.8	49.1	49.4	49.4	49.5	49.1	49.4	49.1	49.4	50.0	49.2	50.00	52.7	48.3	4.4	—
19 d	48.0	49.2	50.1	51.5	52.0	52.1	52.1	51.6	50.8	50.1	50.0	49.4	49.3	49.3	49.8	49.9	48.8	49.1	48.8	49.7	49.3	49.8	48.7	48.8	49.92	52.8	47.4	5.4	—
20	47.6	48.8	50.6	51.5	52.1	52.7	52.9	51.8	50.8	49.1	49.7	49.7	49.2	49.9	49.3	49.0	48.0	47.9	48.7	48.4	48.4	48.9	48.9	48.5	49.68	53.5	47.0	6.5	—
21	47.6	48.4	50.3	51.9	52.3	52.3	52.2	51.2	50.6	50.1	48.5	48.9	49.4	50.0	50.0	49.7	49.5	49.1	48.4	49.1	48.1	48.8	47.6	49.4	49.72	52.4	47.8	5.1	—
22	48.1	48.5	49.7	51.0	52.4	52.2	52.9	51.6	51.8	49.5	51.0	50.0	50.3	50.3	49.7	49.5	49.4	49.4	49.2	48.8	49.2	49.7	48.8	47.0	50.00	52.9	46.1	6.8	—
23	46.3	46.8	48.5	48.2	51.7	52.6	52.6	51.7	50.8	50.1	50.1	50.6	50.1	49.1	49.1	49.3	49.1	49.3	49.2	49.1	50.0	49.4	49.5	48.8	49.66	52.9	45.8	7.1	—
24	48.0	47.6	49.0	50.5	51.6	51.9	51.6	51.2	50.7	49.6	49.6	49.9	49.9	49.7	49.5	49.5	48.6	49.0	49.1	49.6	49.5	49.4	48.6	47.7	49.64	52.0	46.8	5.2	—
25	46.9	47.4	49.3	51.6	53.1	53.8	53.1	51.9	51.1	50.4	49.3	50.2	49.9	49.9	49.9	49.6	49.4	49.4	48.6	48.6	48.5	48.3	47.8	47.4	49.77	54.0	46.8	7.2	—
26	47.6	48.3	49.9	51.5	52.1	52.3	52.3	52.3	51.8	50.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
27	47.2	48.2	49.5	51.0	52.1	52.1	52.1	51.4	50.6	50.1	49.9	49.9	50.1	50.0	49.9	49.7	49.6	49.3	49.1	49.7	49.2	49.0	49.3	47.6	49.77	—	—	—	—
28 c	47.7	48.7	50.3	51.6	52.3	52.4	52.0	51.1	50.4	50.1	49.8	49.7	50.1	49.9	50.0	50.0	49.4	49.5	49.0	48.3	49.2	48.6	47.8	47.4	49.81	—	—	—	—
29 c	47.3	48.2	49.5	50.7	51.3	51.9	51.4	50.8	50.0	49.6	49.9	49.9	50.0	49.7	49.8	49.9	49.4	49.5	49.4	49.3	49.1	49.1	48.5	47.9	49.67	51.9	47.2	4.7	—
30 d	47.7	49.1	50.7	52.6	53.3	53.5	52.7	51.5	50.3	49.7	49.7	50.0	49.9	50.0	50.0	49.9	49.5	48.8	48.0	47.9	47.3	47.8	47.1	44.6	49.65	53.8	44.8	9.5	—
31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
mean	47.34	47.69	49.16	50.80	52.09	52.55	52.28	51.36	50.42	49.64	49.76	49.91	49.80	49.71	49.73	49.57	49.22	49.04	48.94	49.06	49.03	49.27	48.80	47.92	49.71	—	—	—	—
" c	47.02	47.30	48.90	50.90	52.00	52.37	51.98	51.00	50.10	49.55	49.72	49.77	49.90	49.82	49.85	49.80	49.60	49.50	49.32	49.07	49.35	49.30	48.72	47.67	49.69	—	—	—	—
" d	47.66	48.86	50.24	51.68	52.50	52.82	52.36	51.52	50.18	49.68	49.90	49.76	49.88	49.42	49.86	49.56	48.98	48.64	48.54	48.76	48.18	48.58	48.24	47.86	49.71	—	—	—	—
	47.78	49.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 12

Declination (West) 3°0'0" +

May 1988.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range	
Day																													
1 d	46.7	49.7	51.4	53.0	53.4	53.5	53.3	51.6	50.8	50.6	51.9	51.2	51.2	50.5	50.2	47.8	48.0	46.2	47.1	45.1	46.7	51.0	50.3	48.7	50.00	53.8	48.1	10.7	
2	48.1	50.8	51.3	52.3	52.7	52.5	52.2	50.4	49.9	50.1	49.2	50.1	50.6	50.6	50.6	50.7	50.1	49.5	49.8	49.8	49.7	49.8	49.9	49.0	50.42	52.7	48.1	4.6	
3	48.1	48.6	50.9	51.6	51.9	52.5	52.1	51.4	50.4	50.3	50.1	49.7	49.5	49.6	50.3	50.0	49.6	50.1	49.3	49.4	49.1	48.0	47.3	46.7	49.87	52.6	46.4	6.2	
4	46.7	47.7	49.1	49.9	50.8	50.8	50.1	49.5	48.9	49.1	49.3	49.3	49.4	49.4	49.4	49.2	48.6	48.6	48.3	49.3	48.7	48.1	47.8	47.6	49.00	50.8	46.7	4.1	
5	48.1	49.4	50.1	50.5	50.6	51.6	50.0	49.6	49.9	49.9	49.9	50.3	50.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6	—	—	—	—	—	—	51.2	50.9	50.5	49.7	50.6	49.8	49.8	50.2	49.8	49.9	49.8	50.0	49.7	49.7	49.7	49.8	48.5	48.0	—	—	—	—	
7	48.6	50.0	50.3	50.5	51.5	52.3	52.9	51.8	51.0	50.3	49.7	50.2	50.1	50.0	50.2	50.4	50.4	50.1	50.1	50.0	50.2	49.3	48.1	47.9	50.25	52.9	47.6	4.6	
8	48.2	49.7	51.5	52.9	52.5	52.0	51.4	50.6	50.3	49.9	50.3	50.3	50.7	50.2	50.4	50.3	49.7	49.7	49.7	49.2	49.4	49.0	47.8	47.4	50.18	53.1	47.3	5.8	
9 c	48.7	50.0	51.7	52.7	53.2	51.0	50.5	50.5	50.2	50.0	50.1	50.4	50.6	50.7	50.5	50.3	49.9	50.0	50.0	50.0	50.0	50.0	49.2	47.7	47.2	50.21	53.1	46.7	6.4
10 c	47.2	48.8	50.9	52.3	52.7	52.0	51.6	51.2	50.3	49.8	50.3	50.3	50.2	50.1	50.2	50.1	50.1	49.7	49.6	49.7	49.6	48.5	47.7	47.1	50.00	52.9	47.0	5.9	
11	47.1	48.4	50.9	52.6	53.3	52.3	51.9	50.9	50.1	50.0	50.2	50.2	50.3	50.1	50.0	50.0	49.4	49.6	49.1	49.4	49.5	48.8	47.5	46.7	49.93	53.4	46.6	6.8	
12 c	46.8	47.5	49.4	50.7	51.1	50.9	50.7	50.3	50.1	49.7	49.2	49.4	49.6	49.6	49.7	49.4	49.2	48.8	48.5	48.8	48.8	47.9	47.3	46.0	49.14	51.4	45.4	6.0	
13	45.4	46.3	48.3	50.3	52.1	52.7	53.5	52.0	51.4	51.2	51.2	50.6	50.3	49.8	49.7	49.7	49.4	48.8	48.8	48.3	48.5	48.7	48.7	47.6	49.74	53.6	45.4	8.2	
14	47.4	48.9	50.6	51.8	52.3	52.6	52.3	51.5	50.7	50.0	50.1	50.5	50.4	50.1	50.4	50.0	49.7	48.8	48.1	47.9	48.4	48.8	48.0	47.0	49.85	52.6	46.9	5.7	
15	47.8	49.1	50.3	51.8	53.6	54.4	52.9	51.3	50.4	49.6	50.1	50.3	50.5	50.5	50.3	50.1	49.9	49.5	49.0	49.3	49.3	48.8	48.4	48.6	50.28	55.1	47.1	8.0	
16	48.4	50.3	51.7	52.6	53.0	52.4	51.4	50.6	50.1	49.7	50.1	50.2	50.3	49.7	50.1	49.9	49.7	49.5	49.4	49.2	49.2	48.3	47.3	46.3	49.97	53.1	46.2	6.9	
17	47.5	48.8	50.6	52.2	52.6	52.6	51.7	51.3	50.5	50.3	49.7	50.6	49.3	50.5	50.5	50.3	49.7	49.2	48.4	48.5	47.9	47.1	46.0	46.4	49.67	52.9	45.8	7.1	
18 d	47.9	51.2	51.5	53.6	53.9	54.7	52.2	53.9	51.8	51.4	49.4	50.4	50.9	50.6	50.6	50.6	49.9	49.7	49.4	49.9	49.0	48.4	47.9	47.5	50.68	55.1	46.8	8.5	
19	46.7	47.6	49.1	51.6	52.7	52.9	52.2	51.4	50.7	50.1	49.7	50.1	50.2	50.1	50.0	50.1	49.7	49.7	49.2	49.7	49.2	48.5	47.5	47.4	49.84	53.1	46.7	6.4	
20	47.9	48.5	50.7	52.6	53.3	52.8	51.9	50.7	49.6	49.3	49.6	50.1	50.3	50.2	50.2	50.0	49.6	49.8	49.0	48.8	48.6	47.7	47.3	47.7	49.82	53.8	47.1	6.2	
21	48.4	49.6	50.9	51.9	53.5	53.6	52.0	51.4	50.4	50.1	49.8	50.0	49.9	49.6	49.6	49.6	49.3	48.8	48.8	49.4	48.8	47.7	46.7	47.1	49.89	53.6	46.4	7.2	
22	47.3	49.2	51.8	52.2	53.8	53.1	52.2	50.7	49.7	49.3	49.7	49.6	50.0	49.8	49.8	49.6	49.3	49.2	48.8	49.0	48.7	47.4	46.7	46.8	49.72	53.1	45.8	7.3	
23	46.2	47.5	49.8	51.9	53.0	53.0	52.1	50.8	49.7	49.6	49.7	50.1	50.4	50.4	50.2	50.1	49.7	49.4	49.6	49.3	49.2	48.1	46.3	46.1	49.63	53.1	45.1	8.0	
24 c	46.5	48.6	50.4	51.8	53.5	53.3	52.9	51.0	50.1	49.9	49.7	50.1	50.1	49.9	50.2	50.2	49.5	49.0	48.8	48.6	48.5	48.0	46.6	46.0	49.72	53.6	46.9	7.7	
25	46.4	49.1	51.0	52.2	52.7	53.1	52.9	51.6	50.5	50.3	50.1	49.9	50.0	50.1	50.1	50.0	50.0	49.7	49.0	48.8	48.4	48.5	46.6	46.2	49.86	53.2	46.1	7.1	
26 c	46.4	47.9	49.5	51.2	52.2	52.4	51.6	50.1	49.7	49.3	49.6	50.1	50.1	50.1	50.1	50.3	50.1	49.7	49.6	49.4	49.2	48.8	46.7	45.8	49.58	52.6	45.4	7.2	
27	45.8	47.2	49.7	51.4	52.7	53.3	52.8	51.4	49.9	49.2	49.3	50.0	49.9	50.1	50.0	50.0	49.3	49.3	49.3	48.3	48.4	47.5	45.5	45.5	49.41	53.3	44.9	8.4	
28	46.1	49.7	53.2	55.6	56.7	54.9	53.9	52.3	51.3	50.5	50.1	50.1	50.1	50.0	50.1	50.1	50.1	49.6	49.4	49.5	49.3	48.4	47.1	45.9	50.54	56.1	46.7	10.4	
29 d	45.8	47.1	49.0	51.0	52.3	52.6	52.4	51.6	50.8	50.1	50.0	50.1	50.1	50.0	49.9	50.1	48.4	48.8	48.3	48.0	48.2	48.0	48.9	47.1	49.52	52.9	45.8	7.1	
30 d	47.5	49.0	50.9	52.6	53.1	53.8	52.7	52.2	51.7	51.0	50.2	50.5	50.5	50.5	50.0	49.7	49.5	47.1	47.5	47.5	48.3	47.5	46.2	45.4	49.79	53.8	46.4	8.5	
31 d	47.1	48.1	50.0	50.7	52.1	53.2	50.5	50.4	50.9	50.1	49.7	50.1	49.2	50.0	49.2	48.8	48.9	49.1	49.2	49.2	48.8	47.6	46.6	47.4	49.45	53.3	45.8	7.5	
mean	47.20	48.79	50.58	51.98	52.80	52.80	52.10	51.20	50.41	50.03	49.93	50.17	50.16	50.10	50.09	49.91	49.54	49.20	49.04	48.96	48.88	48.39	47.46	46.91	49.86	—	—	—	
" c	47.12	48.56	50.38	51.74	52.54	51.92	51.46	50.62	50.08	49.74	49.78	50.06	50.12	50.08	50.14	50.06	49.76	49.44	49.30	49.30	49.22	48.48	47.20	46.50	49.73	—	—	—	
" d	47.00	49.02	50.56	52.18	52.96	53.56	52.22	51.94	51.20	50.64	50.24	50.46	50.38	50.32	49.98	49.40	48.94	48.18	48.30	47.94	48.20	48.50	47.98	45.88	49.89	—	—	—	
	47.40	48.78																											

June 1933.

Declination (West) 3°00'0 +

Table 13

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range
Day																												
1 d	47.6	48.4	49.2	51.9	53.2	52.6	52.2	50.9	49.5	49.3	49.3	49.7	49.4	48.4	49.2	49.2	49.2	48.7	48.8	48.9	49.9	48.8	47.6	46.3	49.51	53.2	46.2	7.0
2	46.7	47.4	49.0	50.5	51.8	51.5	51.2	51.2	50.9	50.1	49.7	49.3	49.8	48.8	49.3	49.2	49.4	49.3	49.2	49.3	48.8	48.0	47.1	46.2	49.15	52.0	45.3	6.7
3	45.8	47.2	49.2	50.7	50.9	51.5	51.4	50.9	50.9	49.1	49.7	50.4	49.7	49.7	50.2	50.1	50.2	49.8	50.0	49.6	49.7	48.7	48.2	47.3	49.58	51.5	45.8	5.7
4	49.1	50.3	51.2	51.2	51.4	50.9	50.9	50.8	50.1	50.0	49.9	50.2	49.7	49.7	50.2	50.1	49.9	49.8	49.7	49.5	49.2	48.1	47.5	47.8	49.86	51.4	47.5	3.9
5 c	48.4	50.1	51.2	51.2	51.4	51.1	50.2	49.9	49.7	49.2	49.7	50.4	50.2	50.1	50.3	50.0	49.9	50.1	(50.1)	(50.3)	(50.3)	(49.6)	(48.6)	(48.5)	50.02	—	—	—
6 c	(49.0)	(50.4)	52.1	52.7	52.7	52.6	51.8	50.6	49.7	49.6	49.7	50.1	50.1	50.1	50.1	50.1	50.0	49.7	49.7	49.5	49.2	48.6	47.9	48.0	50.17	52.9	47.7	5.2
7	49.4	48.4	50.4	51.5	51.9	51.6	50.3	50.0	49.7	49.7	50.2	49.9	50.1	49.6	49.7	49.2	49.2	49.1	48.8	48.5	47.0	45.9	46.2	47.3	49.32	52.2	45.7	6.5
8	48.8	—	—	—	—	—	—	—	50.3	50.5	50.8	49.7	49.4	49.7	49.2	49.2	48.5	48.3	48.0	47.6	47.2	46.0	45.1	45.8	—	—	—	—
9	48.6	51.4	52.6	52.6	53.5	53.0	52.1	52.1	51.4	50.3	50.5	50.1	50.4	50.5	50.5	50.0	50.1	49.7	49.2	49.2	48.8	47.9	46.3	47.1	50.37	53.7	46.7	7.0
10	48.0	50.5	52.3	53.0	53.2	52.4	51.8	51.4	50.5	50.1	50.4	50.4	50.5	50.2	50.1	49.9	49.2	49.0	49.2	49.2	49.1	48.1	47.1	47.0	50.11	53.2	46.9	6.3
11	47.3	49.2	50.1	51.8	52.6	52.1	51.2	50.5	50.2	49.8	49.7	50.0	49.8	49.7	49.9	49.9	49.7	49.7	49.4	49.0	48.9	48.0	46.5	45.5	49.58	52.6	45.5	7.1
12	46.2	47.5	49.8	51.4	51.7	51.9	51.4	51.3	50.6	49.4	49.3	49.3	49.0	49.2	49.5	49.6	49.3	49.2	49.0	49.0	48.8	47.2	46.1	46.3	49.25	51.9	45.4	6.5
13 d	46.1	47.1	48.8	49.9	53.1	52.7	52.6	51.9	51.6	50.0	50.1	50.2	49.2	48.6	47.9	48.1	47.6	46.7	47.3	47.5	46.5	45.5	45.5	47.1	48.82	53.8	45.4	7.9
14 d	47.4	48.0	49.6	49.3	50.8	50.6	50.6	51.4	51.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15	—	—	49.0	50.9	51.4	51.8	52.0	52.5	51.1	50.1	49.6	49.4	49.3	49.3	49.3	49.1	49.2	49.1	48.8	48.4	48.4	47.5	46.9	46.2	—	52.5	46.0	6.5
16 c	46.4	47.5	49.1	50.3	51.8	52.6	52.5	52.1	51.1	49.9	49.7	49.7	49.8	49.6	49.3	49.0	48.8	48.8	48.4	48.6	48.5	47.3	46.8	45.7	49.28	52.6	45.4	7.2
17	45.9	47.9	49.7	52.3	53.5	54.1	53.5	51.9	50.7	50.1	50.1	50.3	50.2	50.0	50.3	50.5	50.4	49.9	49.7	49.6	49.2	48.0	46.4	46.4	50.02	54.1	45.9	8.2
18 c	46.8	48.4	50.1	51.5	52.2	52.5	52.1	51.4	51.1	50.2	50.5	50.6	50.6	50.5	50.5	50.2	50.0	49.7	49.6	49.4	49.6	48.8	46.4	46.0	49.94	52.5	46.0	6.5
19	47.1	51.5	51.1	52.4	53.3	54.1	53.5	52.1	51.3	50.6	50.6	50.9	50.2	49.8	49.9	49.7	49.3	48.4	47.8	47.9	47.6	46.7	46.2	47.0	49.96	54.1	46.0	8.1
20 d	47.5	49.0	50.2	52.6	53.2	54.0	54.4	53.6	52.6	51.9	51.9	51.8	51.0	50.3	50.0	49.6	49.1	49.4	48.9	48.2	47.8	46.7	44.6	45.3	50.17	54.3	44.6	10.2
21	47.5	48.8	51.4	52.8	53.3	53.4	52.6	51.4	49.7	49.9	50.1	50.1	49.7	50.2	50.3	50.2	49.7	48.9	49.0	49.0	48.4	46.6	45.0	44.3	49.70	53.5	44.5	9.0
22	46.5	46.9	48.8	51.0	52.4	52.9	52.6	52.3	50.7	50.0	49.6	50.0	50.0	50.3	50.4	50.0	49.9	49.6	49.6	49.4	49.2	47.4	45.6	44.6	49.53	53.0	44.5	8.5
23	44.9	47.0	49.1	51.8	53.2	53.5	52.6	51.3	50.4	49.7	49.8	49.8	49.7	49.9	50.0	50.1	50.1	49.4	49.6	49.0	48.9	48.4	46.6	45.8	49.59	53.5	44.9	8.6
24 c	46.8	46.2	47.7	50.1	52.1	52.8	53.0	52.1	50.9	50.2	49.7	49.8	49.8	49.7	49.6	49.4	49.7	49.5	49.2	49.2	48.8	47.6	46.7	46.3	49.41	53.1	45.8	7.8
25	46.7	47.9	49.4	51.4	53.0	53.5	53.8	52.7	51.4	50.3	49.9	50.8	50.5	50.6	50.5	50.2	49.9	49.6	49.3	49.7	49.4	49.3	47.0	48.0	50.18	53.5	46.7	6.8
26	48.3	50.2	52.7	53.8	53.6	52.9	52.7	51.9	50.8	50.0	49.4	49.3	49.9	49.9	50.2	50.2	50.0	49.6	49.2	49.7	49.7	49.1	47.9	47.9	50.40	54.0	47.7	6.3
27	48.5	49.2	50.9	51.6	52.8	53.6	53.2	53.1	51.7	49.7	49.6	50.4	50.8	50.6	50.4	49.6	49.7	49.4	49.2	48.9	48.9	47.5	46.3	46.2	50.05	53.8	45.6	8.2
28 d	46.2	49.7	51.1	51.5	52.6	52.7	52.7	51.3	50.6	50.6	50.3	50.3	50.5	50.3	48.8	49.3	50.2	48.8	48.6	48.0	48.4	48.5	47.1	46.2	49.78	53.2	46.0	7.2
29	47.2	48.8	50.2	51.3	52.4	49.2	50.5	50.6	49.7	49.7	49.7	49.6	49.8	49.2	49.3	48.3	49.7	48.9	48.8	48.9	48.4	47.9	51.5	46.2	49.41	52.6	45.9	6.7
30	47.1	48.3	49.4	50.2	51.0	51.8	51.5	51.3	50.9	50.5	49.7	50.0	49.5	49.2	48.9	48.9	49.1	48.8	49.2	48.8	48.8	48.0	47.3	46.3	49.37	51.8	46.8	6.0
31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
mean	47.17	48.71	50.25	51.59	52.49	52.60	52.14	51.49	50.68	50.02	49.96	50.12	49.98	49.84	49.32	49.71	49.59	49.24	49.14	49.01	48.74	47.81	46.82	46.56	49.72	—	—	—
" c	47.28	48.52	50.04	51.16	52.04	52.32	51.92	51.22	50.50	49.82	49.86	50.10	50.10	50.00	49.96	49.74	49.68	49.56	49.40	49.40	49.28	48.38	47.18	46.84	49.77	—	—	—
" d	46.85	48.55	49.82	51.47	53.02	53.00	52.97	51.92	51.07	50.45	50.40	50.50	50.02	49.40	49.37	49.17	49.02	48.40	48.40	48.15	48.15	47.37	46.20	46.72	49.57	—	—	—
	47.20	48.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 14

Declination (West)

3°00'0+.....

July 1933.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range
Day																												
1	46.5	47.1	48.4	49.6	51.2	51.8	51.7	51.4	50.6	49.9	49.4	49.6	49.6	49.9	49.6	49.4	48.9	48.9	48.7	48.4	48.5	48.4	47.4	46.9	49.26	51.8	46.2	5.6
2	47.5	48.2	48.7	48.9	50.1	51.4	52.1	51.8	51.5	49.9	49.8	49.6	49.6	49.8	49.6	49.6	49.6	48.9	48.7	48.4	48.7	48.4	47.5	46.6	—	51.6	46.4	5.2
3	—	48.3	50.5	50.9	51.5	51.8	51.4	51.0	50.2	50.1	49.9	50.1	50.1	50.0	49.2	49.3	48.9	48.7	48.6	48.4	48.5	47.2	45.9	46.2	49.03	51.1	45.8	5.3
4	47.1	48.2	49.2	50.2	51.0	51.0	50.9	50.6	49.8	49.4	49.6	49.6	49.6	49.6	49.5	48.8	49.0	48.8	48.6	48.4	48.5	47.2	45.9	46.2	49.03	51.1	45.8	5.3
5	46.7	48.0	50.1	51.1	51.8	51.4	51.4	51.0	50.6	50.3	50.1	49.6	49.9	49.7	49.3	49.2	48.8	48.9	48.8	48.4	48.5	47.3	45.4	45.0	49.20	52.0	44.7	7.8
6	45.7	48.3	49.8	51.8	53.1	53.1	52.1	51.4	50.9	50.5	50.5	50.1	50.1	49.7	49.3	49.3	49.3	48.9	48.8	49.1	48.8	48.0	46.7	46.3	49.66	53.5	45.7	7.8
7	46.7	47.5	50.5	51.4	53.0	52.9	52.2	51.1	49.7	49.2	49.5	49.4	49.6	49.4	49.6	49.2	49.2	48.8	48.6	48.0	48.1	47.8	47.0	46.8	49.36	53.8	46.0	7.8
8	46.5	47.7	49.4	51.0	52.4	52.7	52.5	52.2	51.2	50.2	49.7	49.8	49.6	49.5	49.6	49.2	49.2	48.7	48.6	48.5	48.8	46.2	44.0	42.9	49.15	52.9	42.4	10.5
9 d	45.8	47.5	50.8	51.8	53.1	53.8	52.8	51.7	51.0	50.1	48.5	49.7	49.0	47.6	49.1	49.7	49.6	48.4	49.2	48.8	48.3	47.3	46.8	45.52	53.5	44.6	8.9	
10	46.2	46.6	48.8	51.4	52.6	54.2	54.0	53.6	51.9	50.9	49.7	49.2	49.2	49.6	49.7	49.7	49.8	49.4	48.9	48.8	48.6	49.4	48.4	47.9	47.5	54.4	46.2	8.2
11	47.5	47.0	48.8	50.1	51.5	51.8	51.8	52.0	51.2	50.5	50.0	50.3	49.6	49.7	49.3	49.1	48.5	49.1	49.3	49.1	48.9	47.9	46.6	45.0	49.36	52.0	44.6	7.4
12	44.9	47.2	49.7	52.4	53.4	53.6	53.5	52.0	50.3	49.7	49.5	49.6	49.3	49.8	49.4	49.8	49.9	49.5	49.4	49.6	49.7	48.5	47.0	46.2	49.72	53.8	44.9	8.9
13 c	46.7	47.1	48.8	50.3	52.0	52.4	52.8	51.4	50.1	49.3	49.2	49.7	49.6	49.3	49.4	49.6	49.2	49.0	48.8	48.8	48.9	48.1	46.9	46.5	49.31	52.4	46.3	6.1
14 c	46.8	47.7	49.4	50.7	52.4	53.2	53.1	51.9	50.9	49.7	49.2	49.2	49.6	49.6	49.6	49.6	49.5	49.3	49.2	49.1	49.2	48.5	46.7	45.8	49.58	53.8	45.4	7.9
15 c	45.8	46.4	48.5	50.4	51.1	51.5	51.8	51.0	50.0	49.5	49.3	49.6	49.6	49.9	49.5	49.5	49.2	49.2	49.0	49.2	49.2	47.9	46.6	45.8	49.15	51.8	45.4	6.4
16	45.4	46.7	49.0	50.8	51.8	52.5	52.2	51.4	50.4	50.1	50.1	50.1	49.9	49.8	50.0	50.0	49.4	49.0	48.4	48.5	48.4	48.7	47.5	47.0	49.46	52.6	45.4	7.2
17 d	47.1	47.5	49.2	51.2	51.8	51.5	50.6	49.7	49.7	49.6	50.3	50.9	49.6	49.8	50.0	49.4	49.2	49.2	48.8	48.7	47.9	46.3	45.0	46.4	49.14	51.8	44.9	6.9
18	46.7	49.0	52.0	53.2	53.5	51.8	51.1	50.7	50.1	49.7	50.1	49.6	49.6	49.7	49.6	50.1	50.0	49.9	49.5	49.2	48.5	47.1	50.1	46.4	49.88	53.7	45.9	7.8
19	47.5	48.7	50.6	52.0	52.6	52.4	51.6	50.4	49.3	49.4	49.9	50.0	49.6	49.6	49.6	49.6	49.8	49.3	49.3	49.2	48.9	47.9	47.1	47.2	49.65	52.6	46.9	5.7
20	47.6	48.5	50.5	51.8	52.6	52.6	51.8	51.2	49.6	49.5	49.1	49.6	49.6	49.6	50.0	45.7	49.4	49.3	49.4	49.2	49.3	48.8	47.5	46.5	49.70	52.7	46.3	6.4
21 c	47.1	48.4	49.7	52.0	52.6	52.8	52.8	51.0	50.1	49.5	49.6	49.9	49.3	48.7	49.8	49.7	49.7	49.6	49.2	49.1	48.7	48.8	47.6	45.4	49.65	52.8	44.9	7.9
22	45.4	46.3	48.7	50.6	51.4	51.8	51.5	50.9	49.9	49.8	49.7	49.7	49.9	49.7	49.7	49.6	49.4	49.2	49.1	49.0	48.4	47.5	45.5	46.4	49.18	51.8	45.3	6.5
23 d	48.0	50.1	52.6	53.8	53.5	52.6	51.5	50.5	49.4	48.9	49.3	49.6	49.8	49.7	47.2	50.1	49.3	47.7	48.5	48.4	47.2	46.7	44.9	45.7	49.37	53.8	44.1	9.7
24 d	45.5	48.9	50.8	52.9	54.1	53.5	52.2	52.1	49.2	49.6	50.4	49.6	49.8	49.4	50.0	50.1	49.2	50.0	49.7	49.4	48.8	47.4	47.1	47.0	49.84	54.2	45.4	8.4
25	47.0	47.7	49.7	51.4	52.1	51.9	51.6	50.9	50.5	49.2	49.8	50.0	50.3	49.3	49.8	50.9	50.3	50.0	49.3	49.1	48.8	47.9	47.0	47.5	49.67	52.1	46.7	5.8
26	47.9	48.8	50.1	51.1	51.4	51.4	51.0	50.0	49.5	49.3	49.4	50.0	50.1	49.7	49.3	49.5	49.2	49.6	49.2	48.8	48.9	47.3	45.9	46.1	49.31	51.6	45.4	6.2
27 d	48.2	49.2	50.6	52.3	53.1	53.6	52.3	50.9	50.1	47.7	47.9	48.4	49.2	49.6	—	—	49.6	49.2	49.3	48.8	48.0	46.3	47.0	—	—	53.8	45.8	8.0
28	47.0	48.7	51.4	53.3	54.0	54.1	53.5	51.6	50.3	49.6	49.2	49.7	50.0	49.9	49.7	49.6	49.5	49.5	49.4	49.6	49.2	48.9	47.6	47.0	50.10	54.4	46.9	7.5
29	47.2	48.0	49.8	52.1	53.2	53.2	52.7	51.6	50.4	49.6	49.6	49.6	49.8	49.2	49.9	50.1	49.7	49.4	49.4	49.2	49.0	48.7	47.3	46.6	49.80	53.8	45.9	7.4
30 c	46.7	47.8	49.6	50.6	51.8	52.2	52.2	51.4	50.1	49.1	48.9	49.4	49.5	49.4	49.6	49.9	49.8	49.6	49.6	49.6	49.4	48.9	47.2	46.6	49.53	52.5	46.2	6.3
31	46.5	47.0	48.3	49.9	51.4	52.3	52.1	51.0	49.7	49.4	49.6	49.6	49.3	49.9	49.6	49.5	49.6	49.5	49.3	49.4	49.2	48.5	46.7	45.2	49.30	52.5	45.2	7.3
mean	46.61	47.89	49.82	51.37	52.34	52.46	52.04	51.27	50.28	49.72	49.64	49.77	49.69	49.56	49.51	49.63	49.38	49.21	49.08	48.94	48.75	47.94	46.79	46.22	47.55	—	—	—
" c	46.62	47.48	49.20	50.80	51.98	52.42	52.34	51.34	50.24	49.42	49.24	49.56	49.52	49.58	49.58	49.66	49.48	49.34	49.16	49.12	49.08	48.44	47.00	46.82	49.49	—	—	—
" d	46.47	48.50	50.85	52.42	53.12	52.72	51.79	51.00	49.82	49.55	49.62	49.95	49.42	49.12	49.07	49.82	49.32	49.07	49.05	48.82	48.17	47.17	46.07	46.35	49.47	—	—	—

August 1933.

Declination (West) 3°00' +

Table 15

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range
Day	45.4	46.0	47.9	49.6	51.1	52.2	51.9	51.4	50.2	49.2	49.0	49.6	49.5	49.6	49.6	49.5	49.3	49.1	48.9	48.9	49.1	48.8	47.2	46.7	49.15	52.3	45.4	6.9
1 c	46.4	47.4	49.5	51.1	51.9	51.8	51.3	50.6	49.9	49.3	49.3	49.5	49.5	49.9	49.7	49.6	49.2	49.1	49.1	48.8	48.8	48.1	47.3	47.1	49.35	52.1	45.3	5.8
2	46.9	47.6	49.8	51.7	52.4	52.9	52.1	51.0	49.6	49.2	49.2	49.6	49.7	49.6	49.7	49.6	49.6	49.2	49.0	49.0	49.3	47.6	46.3	46.7	49.45	53.0	46.3	6.7
3	46.4	47.6	49.8	51.7	52.4	52.9	52.1	51.0	49.6	49.2	49.2	49.6	49.7	49.6	49.7	49.6	49.6	49.2	49.0	49.0	49.3	47.6	46.3	46.7	49.45	53.0	46.3	6.7
4	46.8	48.4	50.3	51.0	51.1	51.4	51.0	50.4	49.8	49.6	49.8	49.7	49.7	49.6	49.3	49.4	49.3	49.1	49.0	48.8	48.8	47.6	45.9	45.8	49.28	51.4	45.2	6.2
5 d	46.2	48.3	49.8	51.4	52.7	53.3	53.7	51.8	51.4	51.0	50.9	50.9	51.4	48.1	49.2	49.6	48.8	48.6	49.7	50.5	47.5	46.7	46.9	47.7	49.84	53.9	45.4	8.5
6 d	49.7	52.0	53.6	55.8	54.1	54.1	53.1	50.9	50.2	49.8	50.1	49.6	50.2	49.4	50.2	49.8	50.0	49.6	49.8	49.2	49.2	47.8	46.3	45.9	50.46	56.1	45.8	10.3
7	47.0	49.2	51.4	52.7	53.9	53.8	52.0	50.7	49.6	49.2	49.5	50.0	49.6	49.6	50.1	50.1	50.1	49.6	49.6	49.3	49.2	48.4	47.0	46.2	49.89	53.9	46.2	7.7
8	47.0	48.4	51.0	52.6	54.1	54.4	53.2	51.5	50.7	50.0	49.7	49.8	50.1	49.6	49.7	49.9	49.8	49.6	49.4	49.4	49.2	48.4	47.0	46.8	50.06	54.4	46.7	7.7
9 c	47.5	48.8	51.1	53.3	53.9	53.7	(52.3)	50.9	49.8	49.6	49.4	49.2	49.8	49.5	49.6	50.0	49.3	49.3	49.3	49.2	48.6	48.4	47.6	46.7	49.59	53.8	46.6	6.7
10 c	44.5	46.0	49.2	52.0	(53.6)	(54.8)	(54.8)	(53.8)	53.2	49.3	49.7	49.7	49.8	49.7	49.2	49.6	49.3	49.3	49.1	49.0	49.2	48.8	47.5	46.7	49.70	—	—	—
11 c	46.8	47.9	49.7	51.5	52.6	54.0	53.9	52.6	51.3	50.1	50.1	50.0	49.7	49.7	49.6	49.3	49.2	49.0	49.0	49.0	48.9	48.4	47.1	45.5	49.78	54.1	44.9	9.2
12	45.4	46.7	49.3	50.6	52.2	52.6	52.2	51.4	50.1	49.6	49.6	50.0	50.0	49.8	49.6	49.6	49.2	49.2	49.0	48.8	48.8	47.9	46.4	46.2	49.34	53.2	45.0	8.2
13 d	46.6	48.5	50.6	51.8	53.5	53.8	53.0	51.7	50.4	49.4	49.6	51.0	50.9	50.5	49.8	49.0	49.0	48.4	49.6	48.5	49.0	48.4	48.4	50.1	50.06	54.1	46.6	7.5
14	48.0	49.6	52.0	53.3	53.1	52.6	52.2	51.3	50.5	50.0	49.7	50.0	48.7	49.7	48.6	49.3	49.6	49.3	49.3	49.2	48.6	48.4	47.6	46.7	49.59	53.8	46.6	6.7
15	47.2	48.3	50.8	52.3	53.1	53.5	53.0	51.4	49.8	49.0	49.4	49.6	50.1	49.9	49.7	49.7	49.6	49.6	49.7	50.5	49.4	48.5	47.5	47.6	49.97	—	—	—
16	48.6	49.2	50.5	52.1	53.0	53.2	51.8	50.8	48.8	49.4	49.9	49.6	50.1	49.9	49.3	49.7	49.6	49.5	49.3	49.6	49.0	48.4	47.1	46.4	49.81	—	—	—
17	46.7	48.5	49.6	51.2	52.3	53.2	51.8	51.0	49.7	48.3	49.3	50.0	49.3	49.6	49.3	50.0	50.1	50.1	49.0	49.3	48.8	47.6	46.1	46.3	49.48	—	—	—
18 d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19	50.9	53.1	54.3	53.5	52.7	52.6	51.6	50.1	49.6	50.1	50.5	49.7	48.8	50.2	49.4	50.1	49.7	49.4	49.2	49.2	48.6	47.5	46.7	46.3	50.16	54.3	46.2	8.1
20	47.5	49.7	51.4	53.0	53.7	52.7	51.7	50.5	49.6	49.2	49.7	49.6	50.1	48.7	50.1	50.0	—	—	—	—	48.8	47.8	46.8	47.9	—	—	—	—
21 d	47.8	49.6	51.4	52.3	53.6	52.7	51.5	49.6	48.9	48.7	49.2	47.1	49.6	50.2	50.0	49.6	49.6	49.6	48.9	49.4	50.1	48.8	47.9	48.2	49.76	53.6	46.2	7.4
22	49.6	51.4	52.5	52.9	52.6	52.1	50.9	49.7	49.6	49.5	49.3	49.6	49.8	50.0	50.1	50.1	50.1	49.7	49.3	49.2	48.5	47.9	46.8	46.2	49.38	55.2	46.1	9.1
23	46.2	—	—	—	—	—	—	—	50.5	49.2	50.2	50.5	50.4	50.5	49.3	48.7	49.6	49.6	49.2	50.1	48.8	48.4	47.9	47.4	—	—	—	—
24	48.4	50.5	52.6	54.0	54.3	53.9	52.2	50.5	49.5	48.8	50.1	49.3	49.2	50.1	50.1	49.6	49.7	49.7	48.9	49.0	49.6	49.3	48.6	47.9	50.27	54.7	47.9	6.8
25	48.8	50.6	52.2	53.4	54.2	54.3	52.3	51.0	49.4	49.4	49.6	49.7	49.9	49.7	49.6	50.0	49.9	49.8	49.7	49.6	49.2	47.8	46.5	46.3	50.14	54.4	46.3	8.1
26	46.9	49.6	52.6	54.7	55.1	54.4	52.7	51.0	49.2	48.9	49.6	49.9	49.4	48.6	49.5	49.5	49.4	49.6	49.2	49.2	48.8	47.5	46.4	44.6	49.80	55.2	44.6	10.6
27	45.8	48.2	51.4	53.1	53.8	53.2	51.8	50.1	49.2	48.8	49.2	49.7	49.2	49.8	49.8	48.3	49.7	49.7	49.7	49.4	49.2	47.8	46.4	45.5	49.53	53.9	45.4	8.5
28	45.3	47.1	49.5	51.3	51.6	52.3	51.6	50.9	49.7	49.4	50.1	50.3	50.0	50.0	49.7	49.4	49.2	48.9	48.8	48.8	48.8	49.1	47.5	46.3	49.40	53.0	45.3	7.7
29	47.5	49.3	50.3	51.4	51.2	52.7	51.9	50.7	50.0	49.6	50.0	50.1	50.2	50.1	50.1	49.8	49.6	49.4	49.2	49.1	48.9	48.3	47.9	46.2	49.81	52.9	47.3	5.4
30	48.7	49.9	51.1	51.6	51.8	52.1	51.7	50.5	49.7	49.6	49.2	49.7	49.9	49.7	49.7	49.4	49.2	49.0	48.8	48.6	48.5	48.4	47.9	47.5	49.67	52.2	47.5	4.7
31 c	47.9	49.2	50.9	52.1	52.3	51.9	50.6	49.7	49.3	49.5	50.0	50.1	50.0	50.0	49.7	49.7	49.5	49.2	48.9	48.8	48.8	48.0	47.9	49.7	49.74	52.5	47.4	5.1
mean	47.81	48.90	50.89	52.30	52.95	53.11	52.22	50.95	49.97	49.46	49.68	49.77	49.77	49.72	49.66	49.61	49.53	49.35	49.21	49.66	48.92	48.14	47.11	46.77	49.77	—	—	—
" c	46.48	47.53	49.76	51.70	52.70	53.32	52.70	51.62	50.76	49.54	49.64	49.72	49.66	49.70	49.54	49.62	49.38	49.22	48.94	48.82	48.88	48.36	47.56	46.16	49.66	—	—	—
" d	47.57	49.60	51.35	52.82	53.64	53.47	52.82	51.00	50.22	49.72	49.95	49.65	50.52	49.55	49.80	49.50	49.35	49.05	49.50	49.40	48.95	47.92	47.37	47.97	50.03	—	—	—

Table 16

Horizontal Intensity 31900 γ +..... γ

August 1952.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range
Day	67	57	52	65	78	79	88	79	75	65	70	75	74	78	71	73	70	68	71	73	75	75	67	60	70.8	88	51	32
1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5	—	—	—	—	70	72	48	47	48	63	68	69	71	71	72	71	74	70	65	62	58	(57)	(55)	(56)	—	75	27	48
6	61	70	82	86	88	87	86	82	78	73	70	71	73	71	71	83	77	74	74	74	77	75	67	67	75.7	89	61	28
7	67	(69)	70	69	80	78	78	82	80	78	78	79	82	79	75	73	70	73	76	76	79	76	70	68	75.0	82	62	20
8	62	63	63	79	86	86	83	80	72	73	74	75	73	74	73	78	75	76	78	81	78	80	73	73	75.3	88	62	26
9	(73)	77	81	90	88	80	77	72	52	42	53	55	53	61	66	67	67	71	72	73	73	72	69	65	68.7	91	41	50
10c	67	74	80	86	83	79	82	80	80	78	80	83	81	81	82	81	84	85	84	87	87	87	81	77	81.2	88	67	21
11	82	93	96	97	96	92	92	92	50	90	86	88	89	88	92	89	89	89	94	96	97	97	83	69	90.2	98	66	32
12	(65)	69	70	68	78	87	94	96	91	96	94	103	97	98	91	87	78	78	82	82	86	82	78	(76)	84.3	104	62	42
13	78	78	85	81	91	101	104	95	49	73	82	83	81	80	83	78	75	74	81	82	75	76	70	66	80.0	105	48	57
14	66	68	75	85	92	97	94	86	88	81	76	82	86	82	87	88	85	84	84	84	82	78	75	72	82.4	102	68	36
15	75	82	83	103	106	102	93	90	90	88	87	86	81	79	76	78	76	78	81	79	79	75	69	65	83.2	109	63	46
16c	65	73	80	81	89	90	89	90	89	85	85	84	84	81	83	83	84	84	84	85	83	85	78	73	82.3	90	65	25
17c	74	85	91	100	100	105	110	107	102	93	92	107	95	93	107	91	91	92	90	84	86	85	73	74	92.3	112	71	41
18c	78	87	97	103	105	109	109	107	100	89	83	85	85	88	87	87	87	88	90	89	89	89	81	75	91.1	111	73	38
19c	73	90	109	111	112	102	105	105	102	95	97	95	95	96	91	88	85	87	86	89	88	88	81	70	93.6	112	64	48
20	64	61	66	81	89	99	104	75	96	90	90	90	90	94	96	75	99	96	103	103	100	104	102	103	90.5	106	61	44
21	91	102	97	98	104	95	79	69	81	85	83	77	75	73	70	73	75	76	89	91	88	85	81	66	83.5	107	55	52
22	56	57	68	78	83	89	98	107	105	95	93	87	87	85	86	79	84	78	83	81	81	75	71	68	82.2	103	56	53
23	63	61	68	77	88	91	78	88	89	84	74	70	74	79	78	83	71	75	76	78	79	80	79	78	77.8	92	60	32
24	70	63	69	77	88	93	(32)	90	(89)	(87)	(35)	(34)	(83)	82	83	81	83	83	(82)	82	80	81	76	67	81.2	—	—	—
25	63	57	62	68	72	81	93	93	87	84	84	87	87	88	81	83	90	92	92	92	94	90	85	73	82.5	95	57	33
26	76	83	89	95	98	101	104	100	94	89	88	89	88	90	85	83	82	81	84	87	88	88	82	78	88.4	104	76	28
27d	75	79	83	91	98	95	103	95	61	89	42	58	63	69	69	72	54	58	70	69	77	75	73	67	72.3	104	25	75
28d	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
29d	57	58	64	69	66	62	75	62	62	37	43	35	48	79	50	57	58	68	72	75	73	70	57	49	60.2	66	15	47
30	46	38	35	39	68	78	73	75	56	72	62	69	85	72	63	63	81	76	65	71	69	67	64	54	64.2	77	13	64
31	48	52	58	61	(69)	(70)	76	76	76	68	71	71	71	76	74	69	78	79	85	68	80	68	63	58	69.4	—	—	—
mean	67.7	71.0	75.9	82.2	88.3	89.8	90.5	87.2	82.1	78.0	77.8	79.5	80.0	81.4	79.6	78.3	78.8	79.4	81.8	82.0	82.4	80.9	74.9	69.5	80.0	—	—	—
" c	71.4	81.8	91.4	96.2	97.8	98.4	99.0	97.8	94.6	88.0	87.4	90.8	88.0	87.8	90.0	86.0	86.2	87.2	86.8	86.8	86.6	86.8	78.8	70.4	88.3	—	—	—
" d	66.0	68.5	73.5	80.0	82.0	78.5	89.0	78.5	61.5	38.0	42.5	46.5	55.5	74.0	59.5	64.5	56.0	63.0	71.0	72.0	75.0	72.5	65.0	78.0	66.3	—	—	—
	53.0	38.0																										

Table 17

Horizontal Intensity

31900 γ +..... γ

September 1932.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range
Day																												
1	33	34	42	50	56	57	52	60	61	60	63	64	68	62	74	52	57	60	60	58	58	56	50	40	55.1	75	50	45
2	32	28	37	45	41	57	61	62	58	60	62	61	62	53	63	54	58	60	62	60	61	58	54	45	53.9	66	26	39
3 c	41	44	45	47	56	61	68	73	72	66	63	63	65	67	66	68	68	62	65	64	68	69	64	56	61.7	74	41	32
4	53	55	58	63	69	72	76	79	74	69	67	66	66	64	63	64	64	66	74	73	65	65	59	60	66.2	79	55	24
5	(66)	72	75	77	80	79	84	91	86	74	64	62	62	69	69	64	94	78	77	75	77	78	72	59	74.3	102	54	48
6 d	58	48	56	77	93	107	98	66	69	68	57	30	3	25	24	24	57	28	35	37	44	45	44	40	51.0	111	3	108
7	40	33	36	43	52	56	57	59	57	50	57	52	57	56	54	53	56	57	60	70	68	69	61	64	54.8	70	38	37
8 d	(66)	58	55	29	13	44	49	47	51	56	56	57	58	64	63	67	67	68	74	66	58	66	61	59	56.5	79	11	68
9	44	52	52	31	41	48	58	62	62	61	61	61	60	60	63	59	65	68	66	64	64	69	63	55	57.8	69	29	40
10 c	47	45	47	55	66	69	73	73	73	69	66	67	67	67	69	69	68	69	70	71	70	68	66	66	65.4	74	45	29
11 c	61	(61)	58	(66)	73	74	77	75	75	74	73	72	73	75	74	75	73	74	73	73	73	71	70	63	71.1	79	56	23
12	57	53	55	61	68	73	76	76	73	72	71	71	70	71	71	73	71	74	76	77	76	73	64	58	69.2	78	53	25
13	60	65	69	78	76	81	81	78	72	75	75	73	76	75	76	80	77	79	77	80	76	78	70	63	74.6	82	56	26
14	61	63	65	83	103	101	97	88	82	81	(82)	82	81	81	78	78	76	76	83	81	75	75	53	54	78.3	106	58	52
15	61	56	68	68	(70)	79	84	79	79	80	(82)	82	76	74	80	81	79	78	79	81	82	81	71	57	75.1	87	52	34
16 c	54	60	67	76	82	92	93	91	88	84	83	81	77	74	86	79	77	78	78	80	84	86	80	70	79.2	98	52	40
17 c	62	61	58	70	87	93	93	80	75	72	68	67	80	80	82	81	83	73	71	70	76	74	84	75	75.6	96	48	53
18	63	57	59	70	83	97	96	83	75	70	70	65	75	70	68	71	77	78	79	78	79	81	80	61	74.4	98	52	46
19	60	52	47	59	69	77	77	64	49	36	42	43	43	54	61	53	67	62	64	58	61	62	56	59	57.5	78	32	46
20	59	57	42	42	55	62	62	51	43	44	52	56	59	65	61	63	62	65	68	68	67	66	66	60	58.1	70	25	45
21	56	53	56	58	60	56	72	71	68	62	62	66	67	69	68	70	69	70	75	72	72	67	67	62	65.3	75	50	25
22	60	57	63	74	74	79	79	79	75	65	47	24	40	40	48	60	61	59	69	64	68	69	69	57	62.9	83	21	62
23 d	51	(46)	47	53	72	79	72	70	65	28	26	26	17	29	36	49	59	57	82	67	56	59	65	52	53.0	87	16	71
24 d	50	50	48	61	70	68	40	57	67	62	54	47	32	39	49	54	71	57	60	63	65	63	60	42	55.4	74	26	48
25 d	42	44	31	40	57	52	55	33	22	45	43	53	43	57	49	42	64	58	61	56	54	64	44	52	48.6	76	18	57
26	49	45	48	54	65	59	60	52	60	56	56	63	59	61	64	63	63	64	63	63	66	63	63	51	58.7	71	39	32
27	39	26	45	56	69	76	75	61	61	63	52	48	59	72	57	57	52	56	61	62	65	62	59	54	57.8	81	21	60
28	43	45	44	54	64	73	69	56	54	56	53	54	50	54	53	54	54	60	62	64	66	67	64	59	57.4	73	48	50
29	60	55	62	72	81	93	96	89	79	74	61	58	64	67	70	69	70	67	68	65	63	66	(62)	51	69.2	96	42	54
30	42	39	47	53	63	72	74	60	46	46	53	53	54	56	56	60	61	56	61	63	65	66	60	60	56.8	76	37	39
31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
mean	52.5	50.6	52.7	58.7	66.9	72.5	73.5	68.8	65.7	62.6	60.7	59.4	58.6	61.9	63.7	62.9	66.9	65.5	68.4	67.4	67.4	67.9	63.4	57.0	63.2	—	—	—
γ c	53.0	54.2	55.0	62.8	72.8	77.8	80.8	78.4	76.6	73.0	70.6	70.0	72.4	72.6	75.4	74.4	73.8	71.2	71.4	71.6	74.2	73.6	72.8	58.4	70.6	—	—	—
γ d	52.4	49.8	47.4	52.0	61.0	70.0	62.8	54.6	54.8	51.8	47.2	43.6	30.6	42.8	45.2	47.2	63.6	52.6	62.4	57.8	55.4	59.4	54.8	50.4	52.9	—	—	—

Table 18

Horizontal Intensity

October 1982.

G.M.T.	81900 γ +..... γ																							Max.	Min.	Range
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
Day	53	48	53	68	80	84	82	81	75	65	63	63	67	74	77	71	69	68	72	70	70	73	78	71		
1	63	78	87	84	92	98	93	82	74	66	65	60	39	47	67	62	65	75	72	74	70	68	66	71		
2	54	55	56	64	72	78	72	66	61	66	63	65	70	70	80	72	71	72	73	75	76	77	76	65		
3	57	45	41	54	66	75	82	82	82	77	75	79	80	78	77	87	85	89	85	87	87	85	79	71		
4	68	65	63	73	84	95	103	97	89	84	77	71	71	71	74	82	79	78	76	80	81	80	77	70		
5	68	68	77	73	85	94	95	91	86	82	80	82	81	84	82	83	80	82	79	79	81	82	83	77		
6 c	69	60	63	71	81	85	86	87	86	82	80	79	79	80	79	78	81	78	77	76	79	81	88	83		
7	79	74	(75)	(79)	82	88	89	87	83	83	84	84	84	82	77	79	79	75	74	82	82	81	85	81		
8	70	63	67	71	85	85	88	85	80	79	79	75	78	80	85	79	83	79	85	82	77	79	82	76		
9	73	65	68	76	65	65	65	71	74	76	73	74	75	72	71	86	84	84	75	74	75	76	82	79		
10	73	70	74	80	84	88	87	85	76	77	78	78	76	78	75	79	78	82	81	84	80	86	88	76		
11	64	59	65	72	85	88	86	86	81	79	79	80	79	79	79	77	84	84	88	84	80	81	82	74		
12	65	66	73	80	89	94	95	94	90	85	79	84	83	82	85	91	(81)	82	84	82	83	82	81	73		
13 c	63	60	68	82	93	101	100	95	88	84	83	83	83	83	83	82	83	85	93	92	90	90	87	87		
14 c	83	(35)	71	86	98	107	118	115	87	42	27	-8	-18	-10	23	36	25	20	55	49	48	52	49	58		
15 d	51	51	54	63	65	66	40	30	40	49	49	69	44	49	48	69	60	69	61	61	63	64	64	61		
16 d	55	52	58	58	69	72	72	69	59	60	64	66	68	71	75	55	56	70	68	70	73	72	70	74		
17	66	65	70	70	80	79	61	68	66	63	63	62	58	77	65	68	67	68	73	71	71	75	76	72		
18	71	(70)	73	77	84	89	88	84	77	68	64	72	67	55	43	59	53	61	48	47	66	46	61	64		
19	54	46	28	27	23	28	20	15	17	10	33	26	30	59	49	46	48	51	52	55	56	58	61	61		
20 d	58	56	55	60	63	66	67	69	70	67	69	67	65	58	73	64	62	58	60	61	66	64	70	65		
21 d	62	(55)	63	70	73	78	80	78	67	43	37	34	43	45	47	74	55	61	65	66	65	71	66	64		
22 d	64	66	70	78	75	76	70	68	67	56	40	50	56	69	64	63	66	66	67	66	66	70	74	67		
23 d	63	61	59	58	53	62	57	56	51	49	46	43	43	40	43	45	67	64	66	65	67	67	70	72		
24	73	72	76	76	74	69	69	69	69	70	70	69	67	62	67	68	67	67	71	70	74	65	71	70		
25	57	60	66	68	68	68	71	71	68	69	64	68	71	71	72	72	73	58	64	66	69	67	64	60		
26 c	72	75	78	82	91	90	86	85	83	81	81	84	84	79	79	81	84	84	87	88	86	86	85	75		
27	92	91	91	84	86	88	76	67	57	62	63	38	45	63	68	71	71	65	66	67	69	73	72	75		
28 c	67	66	64	67	73	73	72	62	68	67	60	56	66	57	58	60	—	—	—	—	—	—	—	—		
29 c	66.1	64.1	66.1	71.3	76.9	81.0	78.8	76.5	72.0	67.2	64.8	64.2	62.8	65.6	68.0	71.3	70.8	71.1	72.6	72.7	73.3	74.0	74.4	71.5		
mean	65.2	65.2	72.0	75.8	81.8	85.2	86.0	84.0	80.2	78.0	75.2	77.2	77.0	76.4	77.8	79.2	76.6	78.6	80.2	79.6	79.8	81.0	78.8	69.8		
σ c	71.7	70.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
σ d	64.2	62.0	67.8	64.6	68.6	73.6	69.2	64.4	57.6	42.4	42.0	39.6	33.2	39.6	43.2	56.8	48.2	52.4	56.2	55.6	59.6	58.2	60.2	60.6		
σ d	56.4	54.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

Table 19

Horizontal Intensity 31900 γ +..... γ

November 1932.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range
Day	78	79	84	84	70	51	42	20	28	25	28	28	59	55	63	66	69	69	70	75	78	74	78	75	—	85	14	71
1 d	—	—	—	78	78	66	63	70	63	67	63	63	59	(70)	(66)	(65)	69	69	70	75	78	74	78	75	—	—	80	29
2	80	78	78	78	78	74	67	68	65	57	66	(71)	77	75	78	79	76	84	85	78	75	76	81	72	—	82	55	27
3	—	—	76	86	92	80	82	82	81	76	75	75	70	63	69	70	73	81	78	74	79	82	78	74	73.3	93	67	26
4	68	(71)	67	66	72	68	72	78	80	77	75	74	70	63	69	70	73	81	78	74	79	82	78	74	73.3	87	62	25
5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6 c	69	66	68	75	76	83	80	76	75	75	78	78	79	81	80	81	82	80	81	82	81	84	89	85	78.5	90	66	24
7	80	(80)	88	91	90	87	87	88	88	85	86	83	78	75	74	80	83	93	90	81	78	80	79	83	83.6	93	73	20
8	88	(85)	86	83	80	83	83	83	81	81	82	81	79	74	74	78	80	84	85	84	85	84	86	90	82.5	91	71	20
9 c	85	(80)	(82)	83	85	85	84	89	89	90	89	89	90	90	89	89	91	88	90	89	88	92	95	93	88.1	95	82	13
10 c	94	87	80	86	95	96	98	96	(92)	89	(87)	(87)	(87)	(87)	(87)	(87)	88	86	89	90	90	94	98	105	90.6	105	80	25
11	104	96	98	95	99	96	98	89	90	94	96	94	95	92	97	95	94	92	91	86	90	90	96	96	94.1	106	85	21
12	91	86	94	108	108	106	95	83	85	80	78	69	72	—	—	—	—	—	73	79	78	83	87	82	—	111	66	45
13	—	—	83	79	70	78	77	82	81	78	76	72	67	68	65	65	69	75	73	79	78	83	87	82	—	89	64	25
14 d	83	86	92	92	84	84	75	63	61	45	56	66	68	93	66	66	61	66	72	73	75	77	76	81	73.4	96	40	56
15 d	77	75	80	81	73	67	65	72	70	64	65	69	70	73	76	79	75	77	95	99	103	88	89	93	78.1	105	60	45
16 d	90	91	83	57	58	52	45	37	41	53	37	56	54	51	47	69	64	63	64	67	66	69	69	71	60.6	91	38	58
17 a	70	79	(79)	78	75	72	63	66	56	66	52	53	52	68	57	70	69	71	71	67	67	70	78	84	68.0	84	49	35
18	84	83	83	79	74	66	64	68	66	67	71	69	72	78	71	62	79	74	69	73	71	68	78	80	72.9	84	61	28
19	85	81	70	74	78	74	67	66	69	61	63	64	61	63	63	63	71	73	73	76	75	75	82	82	71.2	86	57	29
20	82	81	81	76	76	75	75	65	71	72	70	71	72	76	73	78	83	84	76	76	78	76	80	76	75.9	92	64	28
21	77	75	70	70	73	71	74	78	73	71	74	74	76	75	77	77	83	79	80	80	79	80	80	78	76.0	83	68	15
22 c	74	74	71	72	73	75	77	76	72	75	77	77	78	75	74	73	75	79	81	79	79	82	85	87	76.7	87	71	16
23	86	83	79	75	75	77	81	84	83	81	81	81	78	72	75	79	81	82	83	83	87	88	89	91	81.4	95	70	25
24 c	94	88	88	90	87	85	89	93	93	88	87	86	85	84	86	86	87	84	88	89	89	92	95	99	88.3	101	83	18
25	101	98	100	99	102	107	120	115	106	105	103	93	89	87	89	85	100	91	90	98	99	98	91	99	98.5	122	72	50
26	96	(89)	92	96	90	89	85	83	74	77	80	75	76	79	77	77	80	82	84	87	88	91	93	96	84.8	98	73	25
27	97	(95)	(90)	87	81	73	80	85	83	83	82	82	81	83	81	81	79	82	80	80	83	85	89	91	83.9	91	71	20
28	87	88	90	92	96	96	89	85	81	74	74	76	82	71	66	73	76	93	88	86	86	91	97	101	84.9	107	60	47
29	105	104	(102)	(102)	94	92	94	82	77	76	73	76	74	74	73	91	81	75	76	74	75	76	78	82	83.6	102	67	35
30	82	82	85	88	92	94	91	85	75	72	72	74	77	81	79	79	81	81	82	87	82	83	85	86	82.3	95	70	25
31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
mean	85.5	84.0	83.5	82.8	82.4	81.1	80.5	79.3	77.0	76.0	75.4	76.1	76.0	76.9	75.0	77.9	79.9	80.8	81.5	81.6	82.2	83.2	85.8	87.6	80.5	—	—	—
" c	83.2	79.0	77.8	81.2	83.2	84.8	85.6	86.0	84.2	83.4	83.6	83.4	83.8	83.4	83.2	83.2	84.6	83.4	85.8	85.8	85.4	83.8	92.4	85.2	84.5	—	—	—
" d	80.0	82.7	83.5	77.0	72.5	68.7	62.0	59.4	57.0	57.0	52.5	61.0	61.0	71.2	61.5	71.0	67.2	69.2	75.5	76.5	77.7	76.0	78.0	82.0	70.0	—	—	—

Table 20

Horizontal Intensity 31900 γ +..... γ

December 1932.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range
Day																												
1	89	79	79	81	84	92	95	98	86	81	72	65	74	78	79	80	81	91	84	87	78	81	83	84	82.7	98	65	23
2	81	76	(77)	79	84	85	85	86	86	85	81	81	81	82	82	81	82	82	83	83	84	88	90	98	83.6	97	75	22
3	86	85	81	82	85	87	88	90	88	86	82	80	74	79	81	82	83	84	84	83	85	87	87	92	83.7	94	65	23
4	89	87	80	77	79	85	85	85	85	78	79	78	80	87	75	76	85	85	89	87	87	91	92	94	84.0	96	74	22
5 c	94	(94)	90	88	86	85	87	91	91	86	85	84	84	85	86	86	86	86	87	88	89	88	89	91	87.7	94	82	12
6	88	83	84	91	97	98	100	94	85	81	79	75	76	79	84	83	89	88	89	95	92	92	91	95	87.8	104	74	30
7 c	91	88	86	86	87	87	88	94	94	92	89	91	90	89	89	91	92	91	91	93	93	93	96	97	90.7	100	84	16
8 d	100	106	106	110	113	102	81	93	91	91	89	75	65	77	77	87	89	96	90	98	103	110	110	103	94.2	126	64	62
9	111	95	91	81	75	69	69	60	55	58	61	60	59	62	57	74	78	75	77	79	79	79	83	86	78.9	111	52	59
10	89	87	83	88	80	79	77	82	77	78	74	78	72	68	70	63	70	75	77	87	82	83	83	84	78.4	89	68	26
11	85	84	81	80	77	74	75	76	78	76	75	76	78	80	80	80	81	84	85	83	83	85	89	90	80.6	92	74	18
12 c	87	83	77	75	75	75	74	74	73	72	74	75	79	80	80	80	80	80	82	82	82	83	85	86	79.5	96	65	27
13	96	95	(37)	95	92	90	83	85	87	84	80	80	82	83	71	70	61	86	84	76	82	82	83	86	83.9	99	59	40
14 d	94	97	91	97	91	89	92	98	96	91	80	62	79	(59)	38	57	48	54	45	45	57	47	69	61	72.4	102	15	83
15 d	51	55	43	37	37	45	49	51	48	43	38	41	49	45	67	54	50	60	53	64	67	62	50	45	50.0	69	32	37
16 d	38	40	40	35	46	52	54	52	54	46	41	38	51	56	58	61	62	77	68	55	59	61	61	57	52.6	85	35	50
17 d	58	45	51	55	54	57	59	57	52	44	41	41	56	47	38	42	55	48	53	65	67	65	70	77	54.0	85	34	51
18	85	85	80	78	70	70	74	70	63	56	50	52	53	53	72	65	69	71	71	73	73	78	78	85	69.2	88	45	27
19	88	87	84	78	78	80	79	80	74	70	72	73	66	65	70	61	69	73	75	77	78	85	87	94	76.8	98	61	37
20	97	96	88	88	85	83	81	79	78	71	75	74	74	76	78	79	80	81	82	82	83	84	86	90	82.1	100	71	22
21 c	88	86	79	80	81	85	86	84	79	74	73	73	72	73	82	78	81	81	82	84	84	84	86	86	81.0	91	71	20
22 c	91	91	92	89	84	86	89	86	83	79	76	81	78	77	75	73	78	87	84	85	85	88	92	92	84.6	94	75	21
23 c	93	90	89	84	83	85	87	88	89	83	83	72	70	74	79	80	82	83	85	86	88	86	95	98	84.2	98	69	23
24	97	91	85	83	90	92	94	95	91	86	84	85	89	87	87	82	84	86	89	94	97	95	97	98	89.9	99	85	16
25	96	97	92	90	91	90	103	110	108	99	90	98	86	86	80	74	80	79	76	76	76	84	78	87	88.2	113	75	40
26	94	81	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
27	—	—	—	75	79	81	80	81	76	77	69	59	73	77	68	71	76	74	72	74	74	74	78	84	—	87	58	29
28	87	88	87	84	85	84	84	82	79	76	78	76	81	74	62	81	75	84	72	82	80	78	87	86	80.6	91	55	32
29	91	88	83	79	74	74	75	83	78	77	76	79	74	73	82	76	75	79	77	76	78	80	86	—	—	91	75	18
30	—	—	—	—	—	—	—	—	—	—	—	78	74	79	75	77	75	77	80	85	80	74	78	82	—	88	70	18
31	88	87	84	(86)	85	88	85	78	80	88	81	78	74	78	77	84	84	80	77	81	81	87	84	84	82.0	—	—	—
mean	86.6	84.3	81.4	80.4	80.5	81.1	81.6	82.5	79.6	75.8	73.2	71.5	73.0	73.3	73.1	74.2	76.1	79.5	78.3	80.4	81.6	82.4	84.2	86.4	79.2	—	—	—
γ c	90.6	88.2	84.4	83.0	82.4	83.4	84.4	86.2	85.2	81.4	80.8	79.0	79.0	80.2	83.2	83.0	84.2	84.2	85.4	86.6	87.4	87.4	88.6	92.2	84.6	—	—	—
γ d	68.2	68.6	66.2	66.8	68.2	69.0	67.0	70.2	68.2	63.0	56.8	51.4	60.0	56.8	55.6	60.2	60.8	67.0	61.8	65.4	70.6	69.0	72.0	69.8	64.7	—	—	—
	68.3	64.0																										

Table 21

Horizontal Intensity 31900 γ +..... γ

January 1953.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range	
Day	89	86	77	81	83	85	86	89	88	84	84	78	78	82	80	90	86	71	69	79	89	84	81	84	82.6	98	65	33	
1 d	86	80	(56)	68	74	78	66	66	(83)	78	76	65	77	78	75	76	75	76	77	81	79	77	77	82	75.4	87	56	31	
2	83	74	62	68	73	74	78	78	79	80	81	79	79	76	82	81	79	81	81	82	81	83	85	81	78.3	86	62	24	
3	83	74	62	68	73	74	78	78	79	80	81	79	79	76	82	81	79	81	81	82	81	83	85	81	78.3	86	62	24	
4 c	91	81	76	74	76	76	78	78	81	84	83	83	85	84	79	85	79	81	84	83	84	85	87	91	81.5	92	72	20	
5 c	91	87	(85)	81	76	77	81	85	88	88	86	86	86	86	86	86	84	84	86	86	88	88	90	93	86.0	99	75	24	
6	97	92	84	87	86	86	86	78	87	78	57	52	43	47	76	65	66	70	70	73	81	86	86	87	75.8	101	41	60	
7	86	84	79	74	72	78	71	79	81	81	79	76	75	78	74	73	85	73	73	74	79	83	90	92	78.5	96	71	25	
8	94	86	86	90	80	82	85	85	84	82	84	83	84	84	81	83	85	84	89	87	87	88	92	98	86.0	106	81	25	
9	106	104	101	96	93	92	91	91	90	89	88	88	85	87	91	89	79	79	83	88	86	88	88	98	90.8	106	79	27	
10 c	101	97	96	99	95	85	91	92	89	86	85	86	85	84	86	89	87	87	87	90	89	90	90	93	90.1	101	83	18	
11 c	92	81	74	77	79	82	88	88	88	85	82	84	83	82	83	84	85	87	88	91	91	94	95	103	86.1	103	66	37	
12	103	100	91	94	99	98	99	97	97	98	95	91	94	96	99	97	94	99	99	100	100	100	100	100	100	97.5	105	90	15
13	102	103	98	98	101	102	106	105	100	101	97	91	91	91	91	92	92	94	92	88	93	92	96	104	96.7	105	88	17	
14	105	95	93	98	102	102	102	103	101	98	96	94	94	94	94	94	93	90	89	92	91	96	96	93	96.0	105	78	27	
15	88	88	86	83	78	66	44	48	29	10	40	44	49	55	57	60	60	64	67	72	71	73	72	79	61.8	85	-2	87	
16	77	72	61	63	68	72	64	72	65	53	60	66	63	71	71	73	77	75	75	80	82	82	84	85	71.3	78	44	34	
17	84	79	73	79	76	85	89	90	85	70	73	77	75	78	80	83	82	83	83	81	83	83	84	86	80.9	84	62	22	
18	82	75	73	82	84	81	84	87	85	80	82	81	80	79	81	82	83	84	83	88	90	90	91	90	83.2	84	66	18	
19 d	83	80	78	85	91	96	90	83	84	85	81	86	88	70	55	45	59	59	60	66	77	77	81	86	76.9	91	29	62	
20	96	95	92	98	83	52	54	59	61	60	59	64	65	64	65	68	69	76	76	76	76	77	77	85	72.8	92	41	51	
21 c	82	78	76	81	82	84	85	88	86	83	84	84	85	80	75	79	79	80	84	86	88	90	94	95	83.1	89	67	22	
22 d	88	80	74	96	77	87	96	79	73	70	68	87	70	71	68	73	62	62	66	62	61	58	74	69	74.6	93	49	44	
23	63	46	45	52	60	55	54	55	61	56	60	57	63	64	57	61	58	57	62	65	79	73	83	89	61.6	87	36	49	
24	85	56	55	50	50	56	66	64	64	66	53	58	54	67	64	67	67	63	61	63	68	70	73	73	63.3	79	41	38	
25	78	72	(60)	64	62	62	68	69	65	69	71	71	68	66	79	74	66	64	65	68	72	75	71	79	69.1	74	51	23	
26	77	67	65	58	60	55	66	67	70	69	78	77	82	70	79	84	81	71	71	83	81	84	81	(85)	78.5	78	50	28	
27 d	86	78	82	82	80	68	72	73	72	69	61	74	66	84	74	90	79	88	89	76	70	66	74	83	76.8	85	54	31	
28 d	83	80	81	70	76	75	74	74	70	56	67	62	71	90	81	69	84	69	80	76	71	70	72	65	78.7	84	49	35	
29	69	69	62	68	73	78	73	83	79	77	70	67	66	69	64	60	62	59	62	66	66	72	74	75	69.7	77	50	27	
30	73	66	57	54	60	77	80	76	69	65	68	70	70	69	69	70	82	72	73	73	77	69	76	79	70.6	75	46	23	
31	77	67	60	60	70	78	81	76	76	77	73	74	71	71	73	69	70	81	76	73	74	76	75	78	73.2	74	52	22	
mean	86.6	80.6	75.4	77.7	78.0	78.6	79.4	79.8	78.2	74.8	74.9	75.3	75.0	76.2	76.8	77.1	77.0	76.5	77.4	79.0	80.8	81.3	83.6	86.8	78.6	—	—	—	—
γ c	89.0	84.8	81.0	82.4	81.6	81.8	84.6	86.2	86.4	85.2	84.0	84.6	84.8	83.2	81.8	84.2	82.8	84.2	85.8	87.6	88.0	89.8	91.8	96.0	85.5	—	—	—	—
γ d	85.8	80.8	78.4	82.8	81.4	83.0	83.6	79.6	77.4	72.8	72.2	77.4	74.6	79.4	74.2	72.4	76.2	68.8	72.8	71.8	73.6	71.0	76.4	87.4	76.8	—	—	—	—
	79.4	74.0																											

Table 22

Horizontal Intensity

31900 γ +..... γ

February 1933.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max	Min.	Range	
Day																													
1	76	71	63	58	67	71	73	78	79	79	77	73	77	77	77	76	78	79	79	80	80	83	83	85	75.8	85	59	26	
2	76	63	58	65	69	77	85	86	84	67	68	76	77	88	88	90	94	79	78	80	78	81	88	91	78.4	97	59	38	
3	90	81	74	73	74	77	80	81	81	78	76	78	78	76	73	77	75	83	83	87	91	85	82	98	80.5	107	71	36	
4	105	101	89	85	83	88	84	86	88	82	72	75	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6 c	—	—	—	36	82	81	86	84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
10	80	81	82	82	82	82	84	82	82	80	81	82	82	82	82	84	80	80	79	77	81	81	81	82	81.3	—	—	—	
11 c	82	82	82	85	82	81	81	82	87	87	87	86	87	87	86	86	86	86	86	86	85	85	84	84	84.6	—	—	—	
12	85	86	—	—	—	—	—	—	—	—	(12)	12	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
13	63	65	(64)	(62)	(61)	59	62	65	63	61	59	59	60	61	60	62	61	60	61	(61)	(61)	(61)	65	62	61.3	80	61	—	
14	(63)	(63)	(63)	(63)	(63)	64	69	76	80	77	65	52	50	57	59	70	72	73	76	75	71	69	72	78	67.9	83	63	—	
15	73	68	64	68	70	67	74	76	73	55	64	62	51	60	61	62	84	69	74	66	65	65	67	62	66.7	85	47	38	
16 c	62	62	70	78	76	78	77	72	65	62	61	61	65	65	(63)	66	66	64	65	65	64	66	68	68	67.1	79	58	21	
17 c	69	66	64	64	68	73	76	76	74	(72)	69	69	68	67	68	69	71	72	73	74	76	76	78	86	71.6	91	62	23	
18	91	92	88	81	78	81	82	81	80	80	80	78	77	76	76	78	78	77	74	69	65	74	76	79	78.8	93	63	80	
19 d	76	74	74	85	86	90	84	82	77	86	88	67	33	17	—	51	47	40	47	53	57	45	57	59	61.4	91	—	2	93
20	50	44	49	58	56	51	44	51	54	45	34	46	42	51	45	47	46	49	51	58	58	62	61	59	50.5	65	27	38	
21 d	57	69	64	51	33	36	50	55	53	51	50	53	43	61	41	58	59	45	40	55	64	65	59	74	53.6	75	29	46	
22 d	65	50	72	55	54	44	41	40	49	47	48	50	56	65	61	80	62	57	68	70	56	54	55	74	57.2	83	38	45	
23 d	38	47	52	51	67	72	70	49	35	50	54	55	56	57	67	52	53	61	47	47	43	41	37	—	—	76	30	46	
24 d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
26	—	—	—	—	—	—	44	46	55	58	56	45	46	48	63	58	57	62	59	63	61	62	71	59	—	—	—	—	
27	56	55	53	46	62	70	73	76	75	66	59	51	58	58	61	60	62	66	67	61	62	62	59	61	61.6	77	44	33	
28	52	54	56	51	55	64	67	66	64	60	64	65	65	66	67	67	69	71	69	68	65	66	67	70	63.7	72	43	23	
29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
mean	67.7	65.9	66.2	65.4	67.2	69.4	71.3	70.8	69.1	66.4	65.8	64.6	62.5	65.1	63.0	68.6	69.1	67.3	67.3	68.4	67.9	67.8	68.6	68.6	67.5	—	—	—	
γ c	69.0	68.7	70.0	72.2	71.7	72.7	74.0	73.7	72.2	70.5	69.0	68.7	70.0	70.0	69.2	70.7	71.0	70.5	71.2	71.2	71.5	72.0	72.7	74.7	71.1	—	—	—	
γ d	59.0	60.0	65.5	60.5	60.0	60.5	61.2	56.5	53.5	58.5	60.0	56.2	37.6	50.0	42.0	60.2	55.2	50.7	50.5	56.2	55.0	51.2	52.0	53.0	55.9	—	—	—	
	51.0	47.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

Table 23

Horizontal Intensity

31900γ +γ

March 1933.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range
Day	65	63	63	62	64	67	69	66	64	65	64	66	66	64	65	65	67	68	66	66	69	67	71	71	65.7	73	61	12
1	64	65	65	65	65	74	75	74	71	70	64	68	72	75	75	75	76	75	76	76	77	77	77	77	71.8	78	64	14
2	66	62	63	69	69	75	81	80	84	82	85	80	81	72	69	77	77	70	72	70	76	79	80	78	74.9	85	61	24
3	72	72	74	70	69	77	83	84	81	73	62	69	65	67	67	68	69	67	70	66	68	69	73	77	71.3	85	62	23
4	76	73	75	79	82	82	79	75	74	73	72	72	72	73	74	73	74	76	77	76	78	77	77	74	75.5	88	71	12
5 c																												
6 c	70	67	69	75	84	87	87	84	85	85	82	82	76	76	73	87	78	79	80	81	82	84	86	85	80.2	89	67	22
7 c	86	85	88	87	90	93	90	87	86	86	83	83	86	85	88	86	86	84	83	86	86	88	90	93	86.9	94	83	11
8	88	87	90	94	95	96	97	95	93	93	94	95	94	82	82	83	82	81	80	84	82	84	83	80	88.1	97	79	18
9 c	77	75	72	68	67	71	77	78	78	77	75	75	77	77	78	80	80	82	82	82	82	82	86	88	77.5	86	66	20
10	76	72	72	65	62	73	79	86	85	82	83	84	82	86	86	84	87	88	85	85	84	89	92	86	81.4	92	62	30
11	73	50	49	55	67	81	84	82	81	77	71	70	67	65	74	66	66	68	71	72	75	77	77	82	70.1	85	47	38
12	77	70	70	72	72	73	76	80	70	71	65	67	67	65	75	74	76	76	75	79	76	76	79	76	72.9	80	63	17
13	76	77	73	71	71	78	84	77	74	75	75	75	75	65	79	72	64	63	71	66	74	75	76	71	73.2	85	60	25
14	67	67	67	72	81	73	62	61	62	61	63	64	63	73	73	69	75	74	69	71	70	71	71	68	68.6	81	58	23
15	67	67	61	65	69	71	79	82	82	82	81	74	66	59	74	71	74	76	76	76	77	76	77	74	73.0	88	58	25
16 c	69	73	75	76	76	82	86	88	82	82	82	82	84	83	88	82	82	82	82	84	83	84	87	89	81.6	89	69	20
17	87	84	82	80	86	94	99	99	97	91	85	80	84	79	75	75	82	80	81	84	84	89	93	94	85.7	99	73	26
18 d	93	95	94	74	73	69	62	69	68	65	65	58	62	69	67	69	63	74	70	87	82	87	82	87	74.5	96	47	42
19 d	49	58	72	57	56	64	73	73	72	68	58	60	65	67	62	69	63	79	84	62	75	75	81	79	67.5	89	47	42
20 d	74	67	28	37	49	60	56	60	60	57	41	50	56	62	66	64	53	82	82	63	59	60	57	45	58.0	91	25	68
21	50	41	42	36	40	28	48	54	57	49	49	34	45	58	65	71	64	74	60	59	60	65	62	69	53.3	75	26	49
22	43	35	40	35	50	55	35	39	45	34	50	50	60	44	57	55	57	62	63	68	67	62	70	72	52.0	73	31	42
23 d	66	60	56	59	58	39	41	56	57	55	55	54	50	72	60	63	62	67	64	60	58	66	74	57	58.7	79	28	51
24 d	65	49	38	39	44	55	45	50	54	47	46	56	46	61	54	66	62	63	71	64	59	52	55	50	53.8	72	30	42
25	38	35	36	33	45	52	49	37	32	44	40	55	54	66	66	56	61	61	59	61	61	60	56	55	50.5	69	29	40
26	54	51	51	56	66	71	73	65	61	47	51	63	64	66	67	69	75	74	71	74	78	82	86	84	66.6	88	37	41
27	76	73	75	73	85	98	91	78	78	59	68	64	75	48	39	68	63	64	73	72	66	64	67	70.2	98	87	61	47
28	55	55	54	49	50	71	78	80	76	72	68	64	66	71	64	68	69	67	71	73	68	73	73	39	65.6	80	39	41
29	43	43	45	61	54	68	81	84	76	58	59	44	46	54	60	59	62	61	62	68	67	67	66	54	60.1	85	43	42
30	54	53	54	49	68	78	81	75	65	70	71	64	59	61	69	73	66	66	67	68	68	69	68	66	65.9	81	46	35
31	59	54	48	46	51	66	76	77	73	73	59	50	60	68	71	70	69	69	71	77	77	77	79	74	66.4	81	42	39
mean	66.8	63.8	62.6	62.2	66.4	71.7	73.4	73.2	71.7	68.5	66.6	66.1	66.8	67.9	69.4	70.8	71.4	72.5	73.0	72.9	73.1	74.2	75.9	72.4	69.7	—	—	—
σ c	75.6	74.6	75.8	77.0	79.8	83.0	83.8	81.4	81.0	80.6	78.3	78.8	79.0	78.8	80.2	81.6	80.0	80.6	80.8	81.8	82.2	83.0	85.2	78.0	80.3	—	—	—
σ d	69.4	65.8	57.6	53.2	56.0	57.4	55.4	61.6	62.2	58.4	53.0	55.6	55.8	66.2	61.8	64.2	66.6	73.0	74.2	67.2	66.6	68.0	69.8	75.3	62.5	—	—	—
	55.2	50.0																										

Table 24

Horizontal Intensity 81900 γ +..... γ

April 1938.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range	
Day	73	73	67	61	59	66	78	73	71	67	64	67	66	70	70	68	67	73	78	69	71	72	78	70	69.2	78	57	21	
1	64	64	63	66	67	78	83	82	76	73	70	74	73	68	64	66	71	71	73	73	80	79	78	78	72.2	83	61	22	
2	69	64	62	64	59	56	69	81	80	70	50	84	61	49	58	64	59	61	60	64	71	72	74	71	63.4	83	33	50	
3	67	61	51	59	68	80	88	84	79	80	78	78	81	81	79	78	78	78	81	78	78	82	80	75	75.7	90	51	33	
4	57	54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6	—	—	—	67	78	90	86	75	65	64	69	69	68	68	72	76	78	81	81	84	81	88	83	81	—	92	60	32	
7	76	68	65	72	76	86	95	93	86	84	84	77	78	71	80	66	85	80	81	80	77	81	74	72	78.6	97	63	34	
8	70	66	62	69	72	78	84	72	69	73	71	68	73	74	71	74	78	68	76	79	77	83	85	82	73.7	85	66	19	
9	76	72	68	75	84	83	84	74	65	56	66	57	58	62	57	60	74	66	69	69	71	76	83	81	70.2	86	40	46	
10	76	71	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
11 c	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
12 c	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
13 c	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
14	80	71	72	81	95	93	100	98	97	94	93	90	81	74	66	78	68	80	76	71	85	83	85	80	83.2	100	61	39	
15 d	78	71	70	70	74	80	78	84	87	84	82	78	70	68	66	63	75	72	64	64	73	79	88	75	74.7	89	57	82	
16 d	62	64	59	56	65	66	84	83	75	70	57	64	66	62	84	75	71	73	68	86	93	81	81	73	71.8	98	49	44	
17 d	51	51	53	59	59	65	66	64	73	68	61	48	45	44	44	51	78	85	61	61	62	65	65	65	60.2	86	32	54	
18	68	59	51	61	76	53	72	77	58	72	66	67	63	57	59	61	71	69	71	72	72	63	60	54	64.7	79	51	28	
19 d	47	34	41	44	56	69	75	49	53	53	50	59	41	78	54	62	67	63	61	60	64	68	65	42	56.5	75	34	41	
20	57	60	61	73	81	68	44	54	54	55	53	53	66	60	72	71	61	50	52	59	64	58	62	59	60.3	86	37	49	
21	52	48	39	49	61	78	78	73	71	66	65	71	66	65	66	68	71	71	69	81	78	76	74	66	66.5	85	39	46	
22	60	54	54	54	56	50	59	56	59	50	38	55	46	70	59	71	68	74	73	74	74	66	76	71	61.1	78	35	43	
23	61	59	61	61	66	71	51	59	70	71	71	73	71	73	78	57	61	68	66	64	67	70	69	61	65.8	78	45	38	
24	56	61	61	64	71	70	70	76	71	67	68	71	71	73	78	69	80	69	63	70	73	76	73	64	69.2	83	55	28	
25	65	61	66	78	83	82	85	85	76	69	71	67	69	78	78	73	72	85	73	72	71	73	72	68	73.8	87	58	29	
26	66	64	66	66	72	75	82	82	74	73	—	—	—	—	—	—	—	—	78	—	—	—	78	74	—	82	64	18	
27	67	62	63	65	67	78	84	85	78	71	71	73	75	74	73	70	69	70	71	78	81	80	83	78	73.6	87	60	27	
28 c	64	64	65	69	75	79	78	76	77	71	71	73	73	77	78	73	74	72	73	75	71	73	71	66	72.4	79	61	18	
29 c	62	61	64	71	79	85	87	85	77	73	70	71	71	71	76	76	75	76	77	77	76	76	78	74	74.5	88	61	27	
30 d	63	59	64	80	92	97	97	93	88	79	79	78	87	78	87	87	88	114	114	97	88	98	108	84	87.5	125	59	66	
31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
mean	64.7	61.2	60.1	65.3	71.4	74.5	77.6	76.6	73.5	70.3	67.1	67.2	67.5	68.5	69.2	68.8	72.0	73.4	71.5	72.6	74.6	75.3	76.6	76.6	69.9	70.4	—	—	—
γ c	68.0	62.5	64.5	70.0	77.0	82.0	82.5	80.5	77.0	72.0	70.5	72.0	72.0	74.0	77.0	74.5	74.5	74.0	75.0	76.0	73.5	74.5	74.5	74.5	72.0	73.5	—	—	—
γ d	60.2	55.8	57.4	61.8	69.2	75.4	80.0	75.6	75.2	70.8	65.8	65.4	61.8	66.0	67.0	67.6	75.8	81.4	73.6	73.6	76.0	78.2	81.4	81.4	71.2	70.1	—	—	—

Table 25

Horizontal Intensity 31900 γ +..... γ

May 1933.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range
Day	63	46	49	54	63	64	91	82	78	71	75	67	66	78	20	5	40	4	10	32	28	21	44	29	49.2	107	17	124
1 d	16	8	19	27	36	43	39	27	27	22	30	29	34	37	40	44	46	50	48	48	49	51	51	45	35.4	53	12	65
2	40	36	37	47	53	51	56	46	56	56	54	53	57	56	59	61	61	57	59	66	66	66	70	60	55.1	71	23	38
3	4	50	47	47	43	52	59	66	55	59	60	60	68	72	68	63	66	62	63	76	73	73	71	67	61.0	77	43	84
4	59	56	61	71	77	71	54	70	71	66	62	62	67	59	71	71	71	71	76	72	68	73	76	76	68.0	—	—	—
5	74	67	55	(29)	(44)	(54)	66	68	68	58	53	48	68	60	78	63	63	63	66	69	70	72	68	58	61.7	86	37	49
6	7	40	44	69	77	85	77	65	60	41	59	62	61	56	60	62	61	61	68	63	66	67	64	63	63.1	90	38	52
7	65	67	71	83	90	93	90	86	77	72	71	70	68	73	73	66	71	75	75	73	76	76	78	68	75.0	95	65	80
8	66	68	73	74	81	89	86	83	76	71	71	73	74	78	74	75	73	76	77	76	76	78	78	75	75.7	90	66	24
9 c	71	66	70	76	83	89	88	81	67	61	68	71	77	74	75	73	76	75	75	76	78	78	77	66	74.6	90	61	29
10 c	58	60	64	71	73	74	79	79	76	71	69	75	78	78	74	77	73	72	78	78	81	80	81	78	74.0	82	58	24
11	74	77	87	89	93	95	95	93	87	85	83	85	86	85	83	84	83	88	88	88	87	85	80	75	84.9	95	69	26
12 c	78	73	77	83	83	79	86	88	80	67	57	47	53	59	68	68	71	75	75	74	73	80	86	78	73.1	90	46	44
13	63	64	73	85	96	106	105	102	89	78	77	76	81	74	76	76	68	64	63	68	62	81	73	63	77.6	107	61	46
14	59	50	48	58	45	37	60	66	68	55	51	50	55	61	66	69	71	73	68	73	75	73	71	63	61.0	76	36	40
15	64	62	69	79	82	75	88	80	78	63	58	58	58	73	68	70	70	68	79	72	78	73	70	65	70.4	83	51	32
16	53	50	56	72	75	79	72	76	68	66	69	66	68	71	71	73	75	73	71	73	68	70	66	66	68.8	82	44	38
17	44	58	76	68	74	38	40	84	81	87	39	34	34	42	53	55	55	58	56	61	61	63	63	58	51.1	87	22	65
18 d	53	48	48	51	60	61	66	66	65	63	66	61	61	57	59	56	59	60	59	61	63	68	58	60	59.5	71	46	25
19	61	63	63	71	72	71	62	63	71	73	72	71	71	68	68	69	70	71	66	67	68	70	68	61	67.9	76	52	24
20	52	53	68	79	86	81	81	73	75	67	71	73	75	75	75	76	71	68	76	75	68	76	69	60	71.8	85	51	34
21	53	48	69	90	101	97	92	86	80	75	75	78	78	77	77	84	78	76	73	78	75	77	74	71	77.4	102	48	54
22	68	66	73	81	90	90	90	87	81	74	73	75	73	77	78	78	76	76	79	80	81	81	72	65	77.7	93	56	37
23	58	58	61	67	69	75	70	83	82	78	82	86	83	83	83	90	92	93	96	96	94	93	86	80	81.2	97	58	39
24 c	80	76	81	90	95	95	98	98	90	90	83	85	86	83	85	81	83	85	—	—	—	—	—	—	—	—	—	—
25	—	84	83	88	85	88	96	94	88	88	88	85	86	86	85	83	83	81	83	85	88	93	90	85	—	97	79	18
26 c	74	68	68	79	90	96	100	98	97	98	94	97	95	96	97	105	101	94	95	95	98	98	87	100	92.8	106	66	40
27	68	59	66	78	92	91	90	88	81	78	80	82	82	82	81	79	80	83	83	83	85	88	86	88	81.2	93	57	36
28	83	81	81	79	93	97	93	105	108	104	102	100	100	99	87	78	76	67	76	81	87	90	90	88	89.2	110	66	44
29 d	81	61	48	53	56	64	76	70	66	36	36	39	45	45	50	52	63	97	90	81	77	80	78	78	63.4	100	32	63
30 d	71	68	66	64	58	56	58	69	72	70	63	61	66	76	66	63	73	75	73	72	72	76	73	78	68.1	78	53	25
mean	60.5	53.0	62.8	68.8	74.1	74.9	76.5	75.8	72.3	66.6	66.7	66.5	68.9	70.1	69.7	69.2	70.6	70.0	71.3	73.0	72.6	75.0	73.1	68.8	69.8	—	—	—
" c	67.2	70.6	72.8	77.4	81.4	86.8	87.0	86.8	80.0	75.6	77.4	80.0	81.2	80.2	81.4	81.4	81.6	82.6	83.8	84.2	84.6	85.4	82.2	76.2	80.8	—	—	—
" d	68.4	62.8	64.0	63.6	68.8	63.8	70.6	72.0	70.0	63.6	63.0	60.2	62.2	68.0	55.2	50.6	61.4	59.2	61.0	65.4	65.0	66.0	69.6	80.2	64.2	—	—	—
	59.8	48.0																										

Table 26

Horizontal Intensity 81900γ +γ

June 1933.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range
Day																												
1 d	78	71	76	44	53	68	65	64	69	71	71	69	66	68	72	68	76	73	68	69	65	76	77	73	68.7	78	41	37
2	71	68	66	70	71	76	79	83	87	74	60	64	71	65	76	78	75	76	83	80	79	83	83	83	75.2	88	60	28
3	79	79	78	84	81	78	75	74	58	73	67	71	74	76	79	78	80	81	81	79	81	82	79	76	76.8	84	58	26
4	79	79	83	88	86	88	86	83	86	83	84	80	86	81	84	83	83	83	87	85	85	84	76	71	83.0	88	68	20
5 c	85	84	77	82	89	92	92	92	88	84	85	85	87	86	84	87	85	87	(37)	(37)	(39)	(92)	(38)	(92)	—	—	—	—
6 c	(39)	(39)	87	93	95	91	92	90	88	83	82	86	88	88	88	88	88	88	86	85	88	87	88	92	—	95	81	14
7	88	88	90	93	94	92	92	86	78	80	81	85	91	90	88	92	89	88	88	90	90	86	88	85	88.0	96	78	18
8	86	—	—	—	—	—	—	—	—	88	71	73	68	81	81	83	80	81	80	79	77	75	71	71	—	—	—	—
9	(67)	63	68	77	76	71	74	61	65	55	63	67	65	66	65	68	68	65	70	68	68	70	63	60	66.8	81	50	31
10	63	63	69	81	86	89	85	85	83	80	82	79	83	85	87	85	86	86	83	83	78	83	76	73	80.4	92	58	34
11	68	75	79	85	94	97	92	93	86	78	81	82	78	81	81	81	83	79	81	82	88	83	81	73	82.3	97	66	31
12	66	59	73	86	85	91	93	95	90	85	79	93	84	85	85	85	83	84	84	83	86	88	82	82	83.6	95	59	36
13 d	81	79	71	39	41	65	88	79	58	64	74	77	76	77	81	79	78	76	74	71	73	86	81	83	73.0	92	39	53
14 d	71	61	72	84	86	86	78	71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15	—	—	66	61	73	83	85	87	78	69	63	68	83	73	76	75	76	77	80	82	79	86	83	80	—	88	58	30
16 c	74	71	71	83	81	82	86	87	85	82	81	85	83	84	83	83	84	84	85	81	81	85	83	76	81.7	87	69	18
17	73	71	51	86	94	100	93	76	76	76	73	76	77	78	71	76	79	76	76	79	78	81	73	73	77.6	—	—	—
18 c	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20 d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21	—	—	78	86	90	92	83	69	69	68	66	68	63	68	69	78	83	86	86	76	71	83	86	78	—	98	62	81
22	78	73	73	71	71	76	78	71	86	83	83	83	88	84	84	92	94	91	86	86	88	88	86	77	—	95	73	22
23	73	—	79	83	80	83	92	89	86	84	85	88	88	88	92	90	88	83	92	—	—	—	—	—	—	—	—	—
24 c	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
25	—	—	—	111	110	102	99	93	83	96	98	105	114	121	112	110	103	100	101	102	103	100	93	93	—	121	78	42
26	98	98	102	111	109	102	99	97	88	85	77	81	86	83	81	83	82	83	86	83	89	66	91	85	89.4	111	77	34
27	80	68	93	98	103	106	106	106	85	83	74	78	76	72	75	71	71	75	80	76	73	68	55	62	80.6	106	53	53
28 d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
29	—	—	86	87	85	73	73	74	68	66	66	73	71	75	76	72	83	83	80	81	80	84	76	77	—	90	58	32
30	77	76	79	84	75	76	86	84	82	72	69	71	75	76	78	79	80	82	80	81	84	84	83	83	79.0	85	69	16
31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
mean	77.4	75.2	77.0	80.8	82.4	85.6	86.7	83.9	79.9	77.3	75.9	78.4	79.7	79.1	80.0	81.0	81.3	80.3	81.4	80.4	81.0	81.8	79.9	77.8	80.2	—	—	—
γ c	82.7	81.3	78.3	86.0	88.3	88.3	90.0	89.7	87.0	83.0	82.7	85.3	86.0	86.0	85.0	86.0	85.7	86.3	86.0	84.3	86.0	88.0	880	81.3	85.7	—	—	—
γ d	79.5	75.0	73.5	41.5	47.0	66.5	76.5	71.5	63.5	67.5	72.5	73.0	71.0	72.5	76.5	73.5	77.0	74.5	71.0	70.0	69.0	81.0	79.0	78.0	70.9	—	—	—

Table 27

Horizontal Intensity 31900 α + γ

July 1933.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range
Day	76	69	76	77	77	78	78	78	77	82	83	82	88	88	90	87	86	85	87	83	83	88	86	85	81.6	89	74	15
1	77	87	90	93	87	90	80	80	87	86	84	82	84	83	82	(82)	—	—	—	—	—	—	—	—	—	—	—	—
2	—	71	88	98	98	110	107	97	97	97	92	91	86	88	96	95	93	93	93	84	83	85	85	88	—	110	71	39
3	93	98	99	91	85	90	95	98	97	95	98	99	91	92	83	87	89	88	88	84	84	86	81	78	90.4	101	78	23
4	78	76	69	75	76	81	83	84	86	88	89	90	88	90	88	81	90	90	90	92	93	97	93	90	85.7	98	69	29
5	83	88	95	95	94	95	101	108	93	93	88	81	92	88	88	86	84	85	85	88	85	83	85	79	89.0	105	74	31
6	74	78	78	83	83	89	96	98	97	88	83	92	91	92	89	88	91	88	95	92	91	92	92	92	88.8	98	74	24
7	93	86	90	115	117	115	107	99	92	86	85	89	93	96	97	93	99	103	94	96	98	125	133	115	100.7	135	79	56
8	79	68	68	79	92	91	87	69	55	52	60	73	63	71	71	70	70	71	76	82	79	71	78	68	72.6	95	45	50
9 d	64	68	78	85	88	71	78	84	87	78	66	74	79	80	81	80	83	83	85	78	83	78	68	68	77.8	90	64	26
10	71	61	53	78	86	88	86	86	88	76	80	82	84	88	91	92	81	81	76	74	76	78	78	78	79.2	94	51	43
11	68	71	73	73	78	83	79	81	82	76	76	78	79	82	81	81	77	78	78	76	78	79	76	71	77.2	86	63	23
12	65	68	66	68	69	74	81	86	86	81	80	80	83	87	88	88	85	83	78	83	85	87	85	78	79.7	88	63	25
13 c	71	61	65	71	85	88	88	83	84	83	79	83	85	86	87	85	85	85	85	85	85	87	84	80	81.7	88	61	28
14 c	78	80	84	86	88	88	95	93	90	85	83	83	86	87	86	86	85	86	89	88	88	91	90	85	86.7	95	77	18
15 c	82	84	95	105	108	104	103	104	102	94	86	90	91	88	92	98	95	97	95	91	93	85	85	85	93.6	109	79	50
16	84	83	83	97	111	113	107	101	98	98	105	93	90	78	63	73	83	83	85	90	93	97	90	85	90.7	115	63	52
17 d	88	73	80	101	99	95	88	88	87	72	71	78	72	70	76	81	81	78	78	80	83	81	74	73	80.9	112	65	47
18	73	68	62	63	68	70	75	73	74	76	78	73	79	80	82	78	80	80	77	77	76	76	71	72	74.2	82	59	23
19	73	76	87	88	83	81	85	88	82	71	67	77	78	78	77	75	74	75	73	75	76	78	72	66	77.3	90	58	32
20	62	56	62	62	62	71	78	79	76	76	73	76	79	80	81	81	81	80	78	77	76	77	86	83	75.3	88	56	32
21 c	80	83	85	82	83	86	84	83	83	83	82	83	84	80	78	81	85	85	85	88	89	85	73	70	82.4	92	68	24
22	70	70	76	89	93	95	90	93	95	88	93	81	62	62	69	65	68	81	73	73	83	92	91	81	80.5	98	46	52
23 d	68	76	80	71	35	59	74	64	26	41	57	55	45	53	57	61	95	65	70	71	68	63	62	62	82.3	97	21	76
24 d	66	64	62	63	63	66	64	67	74	76	77	68	63	68	69	69	72	71	71	72	73	76	76	75	69.7	78	60	18
25	73	73	79	81	78	78	88	85	81	78	76	80	81	84	84	80	75	76	81	83	78	82	73	65	78.6	88	55	38
26	54	73	78	93	93	81	82	88	90	—	—	—	—	—	—	—	71	74	78	78	78	81	68	45	—	—	—	—
27 d	59	67	76	86	90	89	82	75	70	65	65	71	74	73	73	74	77	76	75	76	78	73	67	74.5	91	58	38	
28	58	60	56	78	87	88	90	85	82	81	79	79	74	73	65	75	75	75	75	77	79	83	81	73	76.2	98	57	36
29	61	56	56	66	68	75	79	81	81	78	77	72	71	78	75	78	78	78	79	82	80	81	81	78	74.5	84	55	29
30 c	71	66	62	69	72	83	85	85	83	78	78	84	84	86	85	83	79	80	76	88	85	83	83	82	79.6	88	60	28
mean	73.6	72.4	75.3	81.9	83.6	86.2	87.2	85.9	82.7	79.8	79.5	80.3	79.6	81.0	80.7	80.9	82.5	82.2	81.7	82.3	82.9	84.5	82.2	78.2	81.1	—	—	—
σ c	67.4	64.2	66.6	70.6	76.2	80.6	84.2	84.4	83.4	80.6	78.4	78.8	80.8	83.6	83.4	83.6	82.8	82.4	81.8	83.0	82.8	84.6	85.0	80.8	79.6	—	—	—
σ d	75.2	74.2	76.7	84.0	82.7	89.5	89.5	81.7	68.5	69.7	78.7	75.5	65.0	66.0	65.0	67.2	79.0	76.0	76.0	79.0	81.4	82.0	80.5	87.7	75.3	—	—	—
	71.5	70.2																										

Table 28

Horizontal Intensity 31900γ +γ

August 1933.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range
1 c	81	76	76	78	79	84	92	96	98	95	90	91	92	93	95	93	93	93	90	89	87	85	82	78	87.7	94	68	26
2	77	80	86	98	97	101	108	99	98	98	95	90	86	85	87	84	88	84	88	83	83	83	82	82	89.0	99	73	26
3	85	91	88	91	89	85	88	96	98	95	93	91	90	92	92	91	90	88	90	88	85	82	78	81	89.1	94	72	22
4	85	88	90	101	98	97	97	97	93	91	90	90	88	95	95	95	93	90	90	90	90	90	86	84	91.8	97	79	18
5 d	87	90	95	99	97	92	90	74	71	58	63	83	75	55	24	38	63	66	36	45	24	36	31	44	64.2	96	15	81
6 d	50	43	43	—	33	37	31	43	44	43	46	43	40	61	53	50	48	48	56	58	56	58	53	48	45.1	60	—	68
7	44	39	31	31	39	51	59	66	63	56	53	53	56	58	58	57	57	58	58	58	59	58	58	58	53.2	67	23	44
8	51	54	58	71	68	77	80	77	72	69	66	65	67	70	67	66	69	71	68	68	66	66	53	43	65.9	77	37	40
9 c	(45)	48	56	78	83	81	(76)	71	68	67	67	64	63	64	66	66	68	66	66	67	68	70	67	61	66.9	—	—	—
10 c	44	42	41	57	(63)	(69)	(78)	77	78	76	76	76	76	76	76	76	76	76	76	71	73	78	76	68	69.4	—	—	—
11 c	67	72	80	88	88	88	86	82	78	75	73	75	76	77	76	76	78	77	76	76	75	73	73	71	77.3	86	61	25
12	67	70	84	84	93	91	89	88	87	85	85	81	83	81	83	83	85	85	83	86	88	85	78	70	88.1	89	59	30
13 d	65	67	71	83	92	99	106	108	98	90	68	41	41	58	64	81	81	65	68	74	83	79	72	66	75.8	106	33	73
14	71	65	63	53	63	68	69	53	60	62	68	68	73	68	73	63	62	68	67	68	68	68	66	61	65.3	69	49	20
15	56	63	61	63	60	61	63	64	63	60	58	58	52	54	65	66	73	71	68	76	74	71	68	65	68.9	77	46	31
16	62	65	59	63	79	86	86	81	75	64	74	76	76	76	76	76	73	72	72	73	78	70	60	58	71.9	82	52	30
17	56	63	70	70	73	77	84	66	44	50	67	70	69	63	54	51	57	60	64	64	65	66	59	58	63.3	80	29	51
18 d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19	49	56	61	52	50	49	46	34	46	49	53	56	80	63	71	69	70	68	68	68	71	73	65	53	59.2	79	29	50
20	56	62	61	62	61	68	67	80	76	74	66	73	64	74	73	74	—	—	—	—	81	80	62	63	—	—	—	—
21 d	56	53	53	62	62	68	62	68	62	54	44	48	48	71	59	53	58	64	60	61	64	66	59	52	58.6	79	31	48
22	53	63	73	76	75	74	77	58	59	60	59	64	65	67	66	65	67	68	71	73	76	74	73	69	67.7	74	49	25
23	60	—	—	—	—	—	—	—	76	64	68	77	69	70	60	66	71	73	69	77	76	71	61	65	—	—	—	—
24	61	69	68	68	73	85	85	84	71	39	63	61	63	65	63	64	64	76	72	68	73	61	61	44	66.9	81	28	53
25	32	35	41	48	52	51	62	58	58	53	53	51	63	64	61	62	63	66	68	73	71	75	71	52	57.7	72	27	45
26	42	40	49	67	78	96	95	89	72	70	75	70	65	73	74	76	77	78	81	82	78	76	71	68	72.5	94	36	58
27	61	58	64	70	68	71	74	80	76	67	76	81	82	83	78	75	75	76	77	78	74	76	75	71	73.6	79	54	25
28	68	66	69	68	75	83	83	86	87	88	79	78	78	77	78	79	80	79	76	81	77	76	73	64	76.9	84	57	27
29	61	61	68	71	77	79	75	74	76	78	80	79	74	74	75	76	76	76	76	78	80	80	77	76	74.9	77	57	20
30	74	76	81	78	81	86	86	83	83	83	85	84	85	88	93	88	86	82	79	86	85	86	81	81	83.4	89	67	22
31 c	71	73	77	79	85	93	96	98	94	89	85	83	84	84	83	84	85	88	88	86	85	86	81	78	84.8	94	67	27
mean	61.5	63.1	66.6	69.5	73.9	77.7	79.0	76.8	73.9	70.1	70.9	70.3	70.9	72.6	71.8	71.5	73.2	73.5	72.5	74.0	73.4	73.1	69.1	64.5	71.4	—	—	—
γ c	63.7	62.2	68.0	76.0	79.6	83.0	84.6	84.8	83.2	79.8	78.2	77.8	78.2	78.8	79.2	78.6	80.0	80.0	78.2	78.2	78.6	78.0	75.8	67.0	77.2	—	—	—
γ d	54.5	52.5	65.5	60.2	71.0	74.0	72.2	73.2	68.7	61.2	55.2	53.7	51.0	61.2	50.0	55.5	62.5	60.7	55.0	59.5	56.7	59.7	53.7	66.2	60.9	—	—	—

Table 29.

Vertical Intensity 33900γ +γ

August 1982.

G.M.T	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range	
Day	70	62	56	68	79	81	83	87	87	82	84	86	85	84	84	86	87	84	86	86	85	89	83	75	80.8	90	56	34	
1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
2d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
3d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
5	—	—	—	—	90	94	89	92	95	100	98	101	96	96	97	96	96	97	96	92	76	—	—	—	—	101	70	31	
6	70	67	76	83	87	94	97	96	94	92	93	95	97	95	95	96	95	95	95	95	97	99	94	91	91.2	99	67	32	
7	91	88	87	83	84	87	86	89	92	91	92	94	94	94	92	94	95	95	95	94	96	99	97	89	91.5	100	82	18	
8	85	79	69	71	73	72	79	84	88	91	92	92	93	94	94	94	94	96	97	96	95	99	96	89	88.0	99	68	31	
9	85	84	84	89	91	88	92	94	98	96	99	101	101	107	105	103	102	102	103	103	104	107	105	96	97.5	107	84	23	
10 c	86	83	84	86	87	88	94	99	101	(99)	99	101	101	100	100	101	102	102	102	102	102	105	(102)	97	96.8	105	82	22	
11	88	75	74	83	88	93	95	96	97	94	94	96	97	96	97	96	98	99	99	100	97	103	96	87	98.2	104	73	31	
12	(75)	78	83	82	84	91	94	93	95	96	96	99	100	99	98	97	96	96	96	97	97	98	99	89	98.0	101	72	29	
13	84	77	76	81	89	96	100	99	95	95	96	97	98	96	97	96	95	97	98	97	98	96	98	86	98.1	101	74	27	
14	80	71	68	75	77	83	86	86	90	92	92	93	95	95	96	96	96	96	96	95	95	95	95	92	89.0	96	68	28	
15	85	78	77	81	83	86	89	92	92	91	91	92	93	94	94	94	95	96	97	95	96	97	94	87	90.3	98	74	24	
16 c	78	69	70	72	80	88	93	93	93	88	87	89	91	91	91	91	91	91	91	91	92	93	96	92	84	87.3	97	69	28
17 c	75	71	74	75	81	84	91	90	86	85	85	87	88	89	89	89	91	90	89	87	88	89	85	80	84.9	92	71	21	21
18 c	75	69	64	68	68	72	79	82	85	84	83	85	88	88	88	88	88	88	88	89	88	89	91	88	79	81.7	92	62	30
19 c	64	59	63	71	78	81	86	91	91	87	85	86	87	87	87	87	87	88	88	88	89	91	89	81	88.0	91	58	33	33
20	73	61	59	63	66	74	81	86	88	85	84	85	87	89	89	88	89	89	90	90	88	90	87	81	81.7	90	58	32	32
21	63	(59)	59	53	59	68	73	77	85	86	86	86	87	88	88	89	91	89	91	94	92	93	90	82	80.8	95	53	42	42
22	73	64	61	62	66	75	79	84	84	83	84	84	84	87	87	87	86	87	88	89	87	88	87	80	80.8	90	61	29	29
23	75	68	66	69	70	68	72	82	87	86	84	84	85	87	88	89	86	87	88	89	89	90	89	85	81.8	90	66	24	24
24	77	68	71	69	71	77	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
25	73	66	67	72	78	77	85	87	84	85	84	85	86	86	85	85	87	89	88	88	88	89	86	79	82.6	90	65	25	25
26	68	69	71	77	81	84	83	84	83	83	85	87	87	88	87	87	88	89	90	91	91	93	93	91	84.6	95	67	28	28
27d	87	82	77	79	77	82	86	86	82	80	86	98	96	96	99	98	98	98	102	101	101	102	94	82	90.2	103	77	26	26
28d	77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
29d	74	74	76	80	83	85	90	89	90	86	88	89	92	97	95	92	94	94	96	93	93	93	86	81	87.9	98	73	25	25
30	74	69	71	78	91	91	87	89	87	91	89	92	94	90	88	90	95	94	89	92	92	92	88	83	87.3	95	69	26	26
31	77	73	77	78	(88)	(91)	94	93	92	88	88	90	90	90	89	88	91	92	91	90	90	90	90	88	87.4	94	73	21	21
mean	77.2	71.8	71.6	75.0	79.4	83.2	87.0	89.1	89.8	88.6	89.0	90.7	92.0	92.4	92.1	92.1	92.8	93.0	93.4	93.2	93.2	95.1	91.9	85.2	87.5	—	—	—	—
σ c	75.6	70.2	71.0	73.4	78.8	82.6	88.6	91.0	91.2	88.6	87.8	89.6	91.0	91.0	91.0	91.2	91.8	91.8	91.8	91.8	92.2	94.4	91.2	84.2	79.1	—	—	—	—
σ d	80.5	78.0	76.5	79.5	80.0	83.5	88.0	87.5	86.0	83.0	87.0	91.0	94.0	97.5	97.0	95.0	96.0	96.0	99.0	97.0	97.0	97.5	90.0	91.0	89.1	—	—	—	—
75.5	69.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 80.

Vertical Intensity 33900γ+.....γ

September 1932.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range	
Day																													
1	76	70	67	72	80	85	91	93	92	88	88	89	90	91	89	91	87	89	92	92	91	91	93	87	80	86.0	94	67	27
2	70	62	64	68	78	92	96	94	90	87	88	90	91	89	92	91	92	93	93	93	92	92	93	89	80	86.1	96	62	34
3 c	70	57	54	60	70	73	77	82	85	82	83	85	87	88	89	88	89	88	90	89	90	90	90	79	80.6	94	54	40	
4	70	60	57	67	77	80	81	83	83	83	83	85	86	87	86	88	88	89	91	91	89	89	87	83	81.8	92	56	36	
5	(66)	(63)	(62)	(65)	67	71	74	78	80	80	80	82	84	86	87	88	94	89	89	89	91	89	91	89	81	80.2	91	62	29
6 d	(69)	58	61	63	68	81	84	80	83	85	85	86	82	83	86	93	99	96	95	97	97	100	95	90	84.0	100	58	42	
7	83	75	73	77	84	89	92	94	93	92	93	91	91	90	90	90	92	93	93	94	95	95	92	90	89.8	96	73	23	
8 d	84	76	72	69	67	83	86	86	88	89	90	92	92	93	94	93	93	93	95	92	90	95	92	87	87.3	95	67	28	
9	83	79	81	74	84	90	93	93	90	88	89	90	90	90	91	90	92	92	92	91	90	92	88	87	88.2	93	73	20	
10 c	83	78	79	81	88	89	90	88	88	86	85	87	86	87	88	88	88	88	88	89	88	89	86	82	86.2	92	77	15	
11 c	82	78	75	80	85	85	84	82	82	85	88	86	87	88	88	88	88	88	88	88	88	89	87	84	85.3	90	74	16	
12	82	78	79	82	80	84	86	87	85	83	84	86	86	86	87	88	88	88	88	88	88	89	84	81	84.9	89	76	13	
13	79	72	73	79	82	88	91	91	88	86	87	87	88	88	88	89	88	88	88	88	88	88	85	84	85.6	91	72	19	
14	78	(69)	74	81	84	86	88	87	85	84	86	87	85	89	89	90	90	90	92	92	90	91	89	87	86.0	92	69	23	
15	83	73	70	74	81	92	97	94	90	85	87	87	87	88	88	90	89	89	89	89	89	88	86	80	86.0	97	69	28	
16 c	74	75	78	81	86	89	88	88	86	82	83	84	84	85	86	87	87	86	87	87	87	88	88	84	84.6	91	74	17	
17 c	74	(68)	62	68	76	77	81	86	83	80	83	85	85	85	85	85	86	87	87	87	87	88	87	86	84	81.8	88	62	26
18	79	71	70	76	85	87	86	85	82	79	82	84	86	86	87	88	91	89	89	89	88	88	89	87	80	83.9	91	69	22
19	76	69	68	75	80	83	86	84	80	78	84	86	87	89	91	90	93	91	91	90	89	89	88	85	84.3	95	67	23	
20	79	73	66	67	79	83	86	85	84	83	86	87	88	89	88	89	88	89	90	89	88	87	86	85	83.9	92	64	28	
21	80	73	73	76	78	82	84	87	87	83	83	86	85	86	85	85	86	86	87	86	86	84	94	94	88	83.1	89	71	18
22	78	74	66	65	67	72	76	81	80	77	75	77	82	85	87	87	86	86	86	84	85	85	85	85	85	79.6	88	64	24
23 d	80	(72)	64	67	75	84	85	87	83	76	76	81	81	86	89	92	91	93	97	91	87	87	91	88	88.5	97	64	33	
24 d	82	80	78	81	89	86	82	87	80	87	87	85	82	87	91	94	96	90	90	89	90	87	86	84	86.8	94	77	17	
25 d	82	75	70	76	86	87	88	83	80	85	87	88	83	88	89	88	90	87	85	85	82	83	82	86	84.0	96	68	28	
26	85	78	77	80	88	89	87	86	87	84	85	87	85	87	88	87	87	87	86	86	86	83	84	83	85.1	91	76	15	
27	78	65	66	75	83	87	87	81	82	83	80	79	84	86	83	83	82	84	86	85	86	85	85	84	81.6	88	64	24	
28	89	71	(68)	71	77	84	85	82	80	82	70	81	81	83	84	84	86	87	86	86	86	86	86	83	81.5	87	68	19	
29	83	77	79	82	86	90	88	87	80	78	78	80	83	84	85	85	86	85	85	85	83	83	83	83	83.3	90	75	15	
30	82	76	76	81	83	86	89	86	82	82	84	86	86	85	88	87	86	86	87	87	87	88	88	88	84.8	90	74	16	
31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
mean	78.3	71.5	70.0	73.7	79.7	84.6	86.2	86.2	84.9	83.4	84.2	85.5	85.8	87.1	87.9	88.4	89.3	89.0	89.5	88.9	88.4	88.8	87.1	84.3	84.0	—	—	—	
η c	76.6	71.2	69.6	74.0	81.0	83.2	84.0	85.2	84.8	83.0	83.8	85.0	85.8	86.6	87.2	87.2	87.6	87.4	88.0	88.0	88.2	88.6	87.4	82.6	83.6	—	—	—	
η d	79.4	72.2	69.0	71.2	77.0	84.6	85.0	84.6	84.3	84.4	85.0	86.4	84.0	87.4	89.8	92.0	93.8	91.8	92.4	90.8	89.2	90.4	89.2	85.6	85.1	—	—	—	
	83.0	77.4																											

Table 31.

Vertical Intensity 33900r+y

October 1982.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range	
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range		
1	82	76	73	74	76	80	84	87	84	80	82	84	85	86	85	84	85	85	85	85	85	84	87	86	82.7	87	72	15	
2	80	76	72	71	76	79	83	82	79	74	76	79	78	83	87	86	86	89	88	87	84	83	85	83	81.1	89	70	19	
3	79	71	69	75	76	79	82	82	80	80	79	84	85	85	87	84	84	84	85	85	85	85	87	84	81.5	88	68	20	
4	81	73	70	74	79	81	83	87	85	80	81	84	83	82	88	85	86	87	87	87	85	84	84	83	82.1	89	69	18	
5	80	78	71	70	77	78	80	80	80	80	81	81	82	84	86	87	87	87	87	87	87	85	85	85	81.9	85	68	17	
6 c	83	77	72	67	69	70	71	76	79	78	79	80	81	82	82	82	83	84	83	83	83	83	85	85	79.0	87	67	20	
7	83	77	70	66	70	72	78	84	84	81	81	80	81	82	82	83	85	84	84	84	85	84	87	88	80.7	89	66	23	
8	86	81	(72)	(72)	(75)	84	87	86	82	81	83	84	84	84	84	85	86	86	86	86	86	84	87	89	83.4	89	66	23	
9	83	74	70	70	70	74	78	81	79	81	81	82	83	84	85	84	86	83	85	85	82	83	85	85	80.5	86	70	16	
10	81	78	74	73	69	76	76	79	80	83	83	83	83	83	83	86	85	84	82	82	84	85	86	87	81.0	87	68	13	
11	83	80	73	68	72	74	76	78	79	81	81	81	81	82	82	82	83	84	84	84	83	82	83	83	80.0	85	68	17	
12	81	79	75	75	79	82	84	82	81	80	81	82	81	83	82	84	84	84	85	85	85	83	81	84	83	81.7	85	74	11
13 c	76	72	66	64	69	76	79	82	78	79	79	81	81	81	84	85	81	83	83	84	82	83	82	83	78.9	85	63	22	
14 c	75	70	68	65	65	74	80	79	76	77	77	77	78	79	80	81	82	82	83	83	83	82	81	82	84	77.5	85	65	20
15 d	82	78	67	61	64	75	79	79	73	69	70	70	73	82	91	91	89	88	91	88	87	86	84	84	79.2	93	59	34	
16 d	75	78	66	65	76	81	78	79	85	84	85	86	82	84	85	88	86	87	85	84	85	86	88	88	81.7	91	63	28	
17	85	82	77	74	77	85	86	84	80	80	80	82	82	83	85	80	82	86	—	—	—	—	—	—	—	86	73	13	
18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
19	80	79	74	67	67	72	73	77	78	78	80	80	79	84	80	81	83	83	83	83	82	82	83	82	78.8	85	65	20	
20 d	80	(76)	72	66	68	70	73	74	75	74	74	80	79	78	77	82	83	84	83	83	85	78	79	80	77.2	86	66	20	
21 d	77	75	70	66	69	76	81	82	82	82	85	84	85	89	86	84	85	86	85	86	83	84	86	85	81.4	89	65	24	
22	82	80	77	74	74	77	79	80	80	80	81	80	80	80	83	80	81	81	83	83	83	84	85	82	80.4	85	73	12	
23 d	77	75	74	73	75	80	83	82	79	74	77	80	84	86	87	91	86	88	88	88	88	88	86	87	82.3	93	71	22	
24	86	85	80	78	78	80	80	80	80	77	81	81	84	90	85	85	85	85	85	84	85	85	87	86	83.0	90	75	25	
25	85	81	75	68	70	74	79	80	81	81	81	82	83	84	86	86	90	88	87	86	86	86	85	85	82.0	90	68	22	
26 c	85	82	83	74	67	71	76	82	83	82	83	82	82	82	83	84	84	85	85	85	84	84	85	85	81.6	86	66	20	
27	84	80	75	72	72	74	—	—	—	—	—	80	83	88	86	91	85	89	86	86	85	86	85	86	—	92	71	21	
28 c	81	77	73	68	73	79	83	85	84	83	82	84	85	84	85	85	85	84	84	84	83	85	86	86	82.0	85	68	17	
29	82	78	69	62	68	74	78	82	81	81	83	84	84	85	86	86	86	86	86	86	85	85	85	87	81.2	87	61	26	
30	85	81	75	68	68	73	80	81	79	82	86	82	86	90	91	91	91	89	89	90	90	90	88	84	83.7	92	66	26	
31	81	(80)	79	74	74	81	84	84	85	84	84	84	87	86	87	88	89	89	89	89	88	88	90	88	84.7	90	72	18	
mean	81.3	77.3	72.6	69.9	72.4	77.0	80.0	81.4	80.5	79.6	80.5	81.5	82.2	83.7	84.6	84.9	85.1	85.5	85.2	85.0	84.5	84.1	85.1	84.7	81.2	—	—	—	
σ c	80.0	75.6	72.4	67.6	68.6	74.0	77.8	80.8	80.0	79.8	80.0	81.0	81.4	81.6	82.8	83.4	83.0	83.8	83.6	83.8	82.8	83.2	84.2	84.2	79.8	—	—	—	
σ d	78.2	75.4	69.8	66.2	70.4	76.2	78.8	79.2	78.8	76.6	78.2	80.0	80.6	83.8	85.2	87.2	85.8	86.6	86.4	85.8	86.0	84.4	84.6	84.8	80.4	—	—	—	
	81.0	79.0																											

Table 52.

Vertical Intensity 38900 +

November 1932

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range	
Day	82	73	68	65	65	68	72	78	79	82	86	88	88	88	91	—	—	—	87	87	86	85	86	88	84.3	89	70	19	
1 d	85	80	72	68	68	71	78	83	84	88	87	87	87	88	88	—	—	—	87	86	85	85	86	88	82.0	88	64	24	
2	85	81	73	65	68	72	79	84	84	83	83	84	85	85	85	86	87	86	87	86	83	85	86	86	82.7	89	66	21	
3	84	81	74	68	71	77	83	86	86	85	85	84	84	83	84	—	—	—	85	83	85	86	86	88	82.7	89	66	21	
4	80	79	74	70	71	76	80	82	82	83	84	84	84	84	85	85	85	84	84	85	84	85	87	86	81.8	87	70	17	
5	82	76	75	74	74	78	80	83	83	82	82	81	81	81	82	81	81	86	86	83	83	83	82	83	81.0	87	73	14	
6 c	82	(80)	77	72	73	81	86	85	84	85	85	85	85	85	85	87	87	88	88	87	87	87	86	87	83.9	88	71	17	
7	86	83	(77)	71	71	76	80	86	85	83	83	83	84	84	85	85	86	84	84	86	84	85	84	87	82.6	86	71	15	
8	84	74	72	72	76	79	81	87	83	83	83	83	83	83	84	84	84	87	86	86	86	86	86	87	82.3	85	72	13	
9 c	82	72	69	69	73	79	81	82	84	84	84	84	85	84	86	86	86	86	85	84	85	84	86	86	81.9	88	68	20	
10 c	81	75	72	69	72	74	79	79	81	80	79	80	82	(82)	(83)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11	79	(73)	69	67	70	77	81	85	84	81	80	81	81	81	83	84	85	85	84	85	84	84	85	84	81.5	—	—	—	—
12	79	74	69	66	66	72	73	74	77	74	80	82	86	89	81	83	83	83	86	86	86	85	85	86	79.4	90	65	25	
13	86	83	81	78	75	77	81	87	87	83	87	87	87	90	89	89	88	89	91	91	90	85	87	89	85.7	94	75	13	
14 d	85	77	72	66	68	71	77	81	83	87	85	88	88	88	87	90	88	86	90	87	84	85	85	84	82.6	91	64	27	
15 d	79	75	(71)	67	69	72	74	78	78	81	81	81	81	86	84	86	85	86	86	84	86	88	90	80.5	89	67	22		
16 d	83	80	75	71	70	70	75	81	83	82	86	85	85	85	86	84	88	86	85	87	86	85	88	88	82.6	88	68	20	
17 d	85	79	73	71	72	76	77	81	85	82	83	84	84	85	86	86	86	88	88	88	88	87	87	89	83.0	90	70	20	
18	86	81	77	70	69	75	82	82	83	83	83	83	83	84	84	84	86	88	84	84	85	84	86	86	82.0	89	67	22	
19	81	77	73	69	70	75	81	85	83	81	83	82	83	83	84	84	85	84	84	84	85	84	84	85	81.3	86	68	18	
20	83	79	71	70	75	77	78	80	83	82	83	84	85	84	84	85	85	87	88	87	86	87	87	86	82.3	88	69	13	
21	82	79	75	75	76	79	83	86	84	83	83	83	83	82	83	—	—	—	85	85	86	86	85	86	82.7	87	75	12	
22 c	82	74	70	67	68	71	76	81	82	80	79	80	80	80	81	81	81	81	81	81	81	82	82	85	78.6	85	67	18	
23	82	78	74	71	75	75	79	83	79	79	80	78	79	80	81	82	87	84	83	84	84	82	82	82	80.1	87	71	16	
24 c	77	73	73	74	73	77	80	80	80	80	81	81	81	82	83	83	83	83	83	83	83	83	83	82	80.1	85	72	13	
25	83	75	(69)	67	67	69	76	81	81	80	81	81	81	81	82	82	82	85	83	82	83	83	83	82	79.0	83	66	17	
26	76	76	71	71	73	75	78	80	78	76	78	79	81	81	80	82	82	84	84	82	82	82	83	84	79.2	86	70	16	
27	81	74	(68)	(68)	64	69	76	76	74	76	78	81	81	81	81	82	85	84	81	82	81	81	81	82	77.6	86	62	24	
28	84	81	75	73	75	81	83	82	78	78	79	81	82	83	84	84	84	84	84	84	83	84	84	85	81.5	85	73	12	
29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
mean	82.5	77.4	72.9	69.9	71.1	74.9	78.9	81.7	81.8	81.4	82.4	83.0	83.5	84.1	84.2	84.7	85.3	85.1	85.3	84.9	84.7	84.5	85.0	85.6	81.5	—	—	—	—
7 c	83.0	77.8	72.8	70.0	72.2	75.8	79.0	82.4	82.6	82.0	82.4	83.0	83.2	83.0	83.8	84.0	84.6	84.4	84.6	85.0	84.2	85.0	85.2	86.2	81.5	—	—	—	—
7 d	82.2	76.4	72.2	68.4	68.6	72.0	75.4	79.6	80.8	81.4	83.8	85.4	86.0	86.2	86.4	87.0	86.0	86.0	86.3	86.8	86.0	85.3	86.3	86.2	81.9	—	—	—	—
8	84.5	78.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 83.

Vertical Intensity 33900γ⁴.....γ

December 1982.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range
Day	84	77	70	67	71	77	81	83	79	79	80	80	82	84	85	85	85	87	86	85	83	83	84	86	81.0	85	66	19
1	84	81	75	68	71	73	76	83	81	80	80	82	82	83	83	83	84	84	85	87	86	84	84	86	81.0	86	67	19
2	84	81	75	68	71	73	76	83	81	80	80	82	82	83	83	83	84	84	85	87	86	84	84	86	81.0	86	67	19
3	84	81	75	68	71	73	76	83	81	80	80	82	82	83	83	83	84	84	85	87	86	84	84	86	81.0	86	67	19
4	84	81	74	70	74	78	80	79	80	79	80	81	82	81	82	82	84	84	83	82	82	84	83	86	80.6	88	70	16
5 c	85	(80)	74	70	67	72	79	83	81	81	82	83	83	83	83	83	83	83	82	82	82	82	82	86	80.4	86	67	19
6	86	84	74	72	71	75	79	77	77	77	77	77	80	79	80	81	82	80	80	80	80	80	81	83	78.8	84	71	18
7 c	80	75	73	72	72	73	76	81	80	80	81	82	82	82	82	82	82	82	82	82	82	81	81	81	79.5	83	72	11
8 d	81	80	77	74	74	73	71	77	80	80	78	77	76	81	83	84	84	84	81	82	82	83	82	79	79.3	85	70	15
9	80	80	76	74	71	72	75	76	77	77	80	81	82	83	83	86	87	84	85	84	84	83	83	83	80.2	87	70	17
10	84	80	77	77	77	79	79	81	80	80	79	80	81	81	81	80	82	82	82	84	83	81	81	82	80.5	87	76	11
11	82	79	75	70	72	74	75	77	79	79	80	81	81	82	82	82	82	82	82	81	81	82	82	83	79.4	83	69	14
12 c	81	76	70	68	71	72	73	76	79	79	80	81	82	83	83	83	82	81	81	81	81	81	81	81	78.5	83	67	16
13	80	77	74	73	76	76	77	80	82	80	80	80	81	81	81	81	82	86	86	84	84	85	85	86	80.7	88	73	15
14 d	83	75	66	66	68	72	76	81	80	78	76	74	79	(70)	73	84	84	86	84	82	86	80	82	83	77.8	87	68	24
15 d	83	80	76	75	76	79	85	88	85	85	83	85	88	88	90	89	87	83	88	86	83	84	79	79	84.0	91	74	17
16 d	78	73	74	74	81	86	87	88	86	84	84	84	86	89	89	89	88	92	88	84	86	85	86	86	84.5	92	72	20
17 d	84	75	74	77	77	81	82	82	82	81	82	83	87	86	84	85	89	87	88	89	90	87	87	86	83.5	92	73	19
18	84	80	76	75	78	79	81	83	82	81	81	84	84	84	86	86	86	87	87	88	87	87	85	86	83.2	89	74	15
19	83	86	82	80	81	82	83	84	83	82	83	83	83	83	86	83	86	87	87	86	86	88	86	86	84.4	88	73	9
20	85	81	79	81	81	82	82	84	82	84	84	84	85	86	86	87	87	87	87	87	87	87	87	89	84.6	89	78	11
21 c	88	86	78	78	79	79	82	84	82	81	82	83	83	84	85	85	86	85	85	86	85	84	84	84	82.2	86	76	10
22	84	82	83	80	80	82	84	84	82	81	80	80	82	82	82	82	82	82	84	83	82	83	83	84	82.2	88	80	8
23 c	86	84	78	76	75	75	78	82	82	81	79	78	79	82	84	84	83	83	82	83	83	83	82	82	81.0	88	78	15
24	88	84	77	77	79	80	81	82	82	80	80	79	81	82	82	81	81	82	83	83	83	82	82	82	81.4	88	76	12
25	83	79	72	72	74	75	81	84	84	79	79	79	79	80	80	79	81	81	81	81	80	82	81	84	79.6	87	71	16
26	86	80	79	81	83	81	83	84	79	81	82	83	83	83	83	83	84	84	84	85	83	80	82	82	82.5	86	79	7
27	79	73	68	69	76	79	82	85	82	84	83	82	85	88	88	86	88	87	86	87	87	87	88	89	82.7	90	67	23
28	87	81	78	73	77	75	82	86	86	84	84	85	86	86	85	90	88	89	86	87	87	85	87	86	84.3	91	73	18
29	85	82	—	—	—	—	82	85	83	83	84	85	85	86	88	86	86	86	86	86	86	86	86	—	—	89	75	14
30	—	—	—	—	—	—	—	—	—	—	—	80	81	83	84	85	84	85	86	87	85	83	83	84	—	—	—	—
31	85	83	80	(80)	80	81	82	85	83	83	83	83	83	85	85	86	87	85	84	86	85	85	84	84	83.6	—	—	—
mean	83.7	79.7	75.3	73.8	75.4	77.3	79.7	82.2	81.6	80.7	80.9	81.3	82.5	83.2	83.7	84.1	84.6	84.8	84.4	84.4	84.2	83.6	83.5	84.1	81.6	—	—	—
σ c	84.0	80.2	74.6	73.0	72.8	74.4	77.6	81.2	81.2	80.0	80.6	81.2	81.8	82.8	83.4	83.2	83.2	82.8	82.4	82.8	82.6	82.2	82.0	85.0	80.6	—	—	—
σ d	81.8	76.6	73.4	73.2	75.2	75.2	80.2	83.2	82.8	81.6	80.6	80.6	83.2	82.8	83.8	86.2	86.4	87.4	85.8	84.6	86.4	83.8	83.2	82.8	81.8	—	—	—
	81.8	77.6																										

Table 34.

Vertical Intensity 33900γ +γ

January 1933.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min. Range	
Day	84	79	77	80	81	84	85	85	84	84	85	84	85	86	88	89	89	85	87	88	90	89	88	86	85	91	76	15
1 d	88	83	(78)	79	83	88	92	92	88	85	88	86	90	90	89	90	89	89	90	91	91	91	91	92	87.8	95	75	20
2	92	84	75	82	89	88	88	87	90	90	90	89	89	89	91	90	89	89	90	90	89	89	89	89	89	91	75	16
4 c	90	89	81	77	76	79	83	87	88	88	88	87	88	88	88	89	87	88	89	88	88	88	88	88	89	90	76	14
5 c	90	88	(76)	75	74	77	80	85	88	87	87	87	87	87	87	87	87	87	87	87	86	86	86	87	84.8	92	78	19
6	90	86	77	74	76	81	83	86	88	84	80	80	83	86	92	89	88	89	89	88	89	89	89	90	85.2	92	73	19
7	89	81	77	78	80	81	85	92	90	87	87	86	86	87	87	88	87	89	86	85	86	87	89	90	85.8	92	77	15
8	90	81	79	75	70	78	86	88	86	84	85	85	86	87	86	86	86	86	87	86	86	86	87	89	84.4	90	70	20
9	88	85	83	78	79	80	81	82	83	83	84	85	85	86	86	86	84	85	86	87	87	87	86	88	84.4	89	77	12
10 c	89	81	74	70	73	74	80	88	86	83	83	84	85	85	86	87	87	86	86	87	86	86	88	88	83.5	89	70	19
11 c	86	80	78	72	74	80	86	89	88	85	83	84	85	85	85	86	87	86	87	87	87	87	87	87	84.2	89	71	18
12	87	78	84	67	73	75	73	84	85	84	82	83	84	85	86	85	85	85	85	85	85	85	85	86	82.4	87	66	21
13	86	77	70	71	77	81	84	85	84	83	82	82	82	83	84	84	84	85	85	84	85	84	84	88	82.3	88	69	19
14	86	79	79	78	78	82	86	85	83	82	82	82	83	83	84	84	84	84	84	84	85	84	84	86	83.0	87	75	12
15	81	77	(74)	(74)	(74)	74	74	79	76	74	85	88	89	90	89	89	89	89	89	90	89	89	89	91	83.4	92	70	22
16	91	86	81	79	82	83	81	83	83	79	83	87	86	87	88	88	88	88	88	88	88	87	87	87	85.5	91	79	12
17	86	82	71	70	80	89	90	89	85	81	81	83	83	83	85	84	84	85	84	84	84	84	84	87	83.3	91	67	24
18	83	73	74	77	86	88	90	88	84	83	83	83	83	83	83	84	84	84	84	85	85	84	85	87	83.4	90	72	18
19 d	83	75	68	66	68	75	81	78	80	81	81	82	83	80	78	80	86	86	85	87	88	87	87	85	80.4	86	65	23
20	85	83	80	79	79	74	79	82	83	83	83	84	85	86	86	86	87	87	88	87	87	87	87	90	84.2	91	72	18
21 c	87	82	73	72	72	77	81	84	84	82	82	82	83	82	82	83	83	83	83	84	84	84	85	81.6	86	71	15	
22 d	84	78	70	66	68	78	84	85	80	79	80	82	83	84	85	85	85	83	84	82	81	81	84	84	80.6	86	66	20
23	84	76	71	74	82	86	88	90	88	84	86	86	86	86	85	86	86	85	86	86	87	84	85	88	84.4	91	71	20
24	85	75	71	69	70	77	84	87	86	84	83	84	85	85	85	85	85	85	83	83	83	83	85	85	81.3	90	69	21
25	85	77	67	70	74	76	80	(81)	87	81	82	83	84	84	87	86	82	84	83	84	84	84	83	87	81.2	88	67	21
26	85	78	78	73	75	73	79	83	84	83	84	84	84	(82)	85	85	85	82	83	85	83	83	82	(85)	81.8	85	73	12
27 d	84	81	79	76	74	75	75	80	82	81	80	84	82	86	84	87	84	84	86	81	80	79	80	82	81.1	87	73	14
28 d	82	80	80	77	81	79	77	79	81	78	83	82	85	86	87	81	85	83	83	84	82	81	82	81	81.7	87	76	11
29	79	80	72	72	75	78	80	83	81	81	81	81	82	84	82	83	85	84	85	85	85	85	85	85	81.4	86	71	15
30	82	76	72	72	77	82	80	82	81	81	84	84	85	84	85	85	85	87	84	85	85	85	84	85	82.1	87	71	16
31	78	70	63	63	66	74	83	86	84	82	82	83	82	82	84	83	84	84	84	84	84	85	85	89	80.2	89	63	26
mean	85.8	80.0	75.2	73.7	76.3	79.5	82.5	84.9	84.3	82.7	83.6	84.1	84.4	85.3	85.8	85.9	85.8	85.8	86.0	85.9	85.7	85.3	85.6	87.2	83.4	—	—	—
η c	88.4	84.0	77.0	73.2	73.8	77.4	82.0	86.6	86.8	85.0	84.8	85.0	85.6	85.6	85.8	86.4	86.2	86.0	86.6	86.4	86.2	86.2	86.2	87.2	83.7	—	—	—
η d	82.4	78.6	74.8	73.0	74.4	78.2	80.4	81.4	81.4	80.6	81.8	82.8	83.6	84.4	84.4	84.4	85.0	84.6	85.2	84.8	84.0	83.2	83.8	84.8	81.8	—	—	—
	83.6	80.4																								—	—	

Table 35.

Vertical Intensity 33900γ+.....γ

February 1932.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range	
Day																													
1	85	77	71	71	73	75	75	73	81	81	82	82	84	83	83	83	83	83	83	84	84	84	85	87	80.8	87	63	18	
2	75	63	59	59	63	69	75	81	82	77	79	83	82	84	83	82	85	82	81	83	83	83	85	89	77.8	89	59	20	
3	85	83	75	70	72	78	80	81	81	81	81	81	80	81	81	81	83	83	82	83	83	83	83	86	80.7	87	70	17	
4	83	68	53	58	60	61	68	74	80	79	77	80	—	—	—	—	—	—	—	—	—	—	—	—	—	88	57	26	
5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6 c	—	—	—	73	76	74	73	77	81	81	81	81	83	84	84	84	85	85	85	85	85	85	86	88	—	—	—	—	
7	82	79	77	78	78	81	81	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9	86	81	75	72	74	78	73	81	82	83	84	85	86	83	86	84	87	88	88	86	85	87	86	89	83.1	89	71	18	
10	85	81	78	78	81	85	87	87	85	83	85	85	85	86	86	85	86	86	86	86	85	84	85	88	84.5	88	78	10	
11 c	83	(77)	71	68	76	84	85	85	85	83	83	83	84	84	85	85	84	84	84	84	85	86	86	88	82.6	89	66	23	
12	77	63	—	—	—	—	—	—	—	—	—	79	81	—	—	—	—	83	84	—	—	—	—	85	—	—	—	—	
13 c	78	68	66	—	—	78	84	85	83	81	81	82	84	84	84	85	85	85	86	86	(87)	—	—	86	—	87	65	22	
14	—	—	—	66	72	77	83	87	86	82	82	81	81	84	85	87	87	87	87	87	86	85	84	86	—	87	66	21	
15	82	75	72	74	75	78	84	85	83	78	82	84	82	85	85	86	89	86	82	84	84	84	85	82	81.9	89	72	17	
16 c	81	76	73	73	75	77	81	80	83	80	84	85	87	86	87	87	87	87	87	87	88	88	88	89	88.2	90	72	18	
17 c	88	83	75	69	77	81	84	85	85	(85)	85	(85)	85	85	85	85	86	86	86	86	86	86	86	86	88.7	87	69	18	
18	82	74	65	63	66	74	76	80	81	82	83	83	82	83	83	84	84	84	84	83	83	82	84	83	79.5	84	68	21	
19 d	77	73	67	67	72	77	81	81	81	83	84	79	76	78	80	91	88	88	88	88	88	83	84	87	89	81.1	90	65	25
20	85	83	82	84	84	83	82	82	85	86	86	88	89	91	88	89	89	89	89	89	89	88	88	87	86	86.5	91	81	10
21 d	82	81	76	69	65	74	82	86	86	86	87	88	87	91	88	92	88	87	86	90	89	89	85	88	84.3	92	65	27	
22 d	82	82	79	74	77	79	81	85	88	88	88	89	89	91	91	92	88	86	88	88	88	84	84	85	85.2	92	74	18	
23 d	83	85	80	73	76	80	82	79	80	86	87	89	89	89	92	89	89	89	86	86	86	86	84	86	84.6	94	72	22	
24 d	87	84	84	81	79	82	84	84	84	85	89	86	90	88	89	90	92	93	93	88	84	87	83	87	86.4	94	78	16	
25	87	84	80	75	74	81	82	81	84	84	88	87	85	90	89	91	90	90	89	89	86	85	85	85	85.0	91	74	17	
26	82	78	—	—	—	—	84	84	86	86	86	86	85	87	90	88	88	88	88	88	87	87	88	84	—	—	—	—	
27	78	73	64	57	65	74	80	80	84	82	82	83	84	84	86	86	86	87	86	85	85	85	84	81	80.1	87	57	30	
28	78	75	71	69	72	78	84	86	87	85	86	87	87	87	87	88	88	88	87	88	87	87	88	83	83.7	90	68	22	
29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
mean	82.7	78.4	73.5	70.8	73.5	78.3	81.3	82.5	83.5	83.0	84.4	84.8	84.9	85.7	86.0	86.9	87.0	86.6	86.0	86.2	85.4	85.6	85.3	86.5	82.9	—	—	—	
σ c	84.0	78.7	73.0	70.0	76.0	80.7	83.3	83.3	84.3	82.7	84.0	84.3	85.3	85.0	85.7	85.7	85.7	85.7	85.7	86.0	86.3	87.0	86.7	86.3	83.2	—	—	—	
σ d	82.2	81.0	77.2	72.8	73.8	78.4	82.0	83.0	83.8	85.6	87.0	86.2	86.2	87.4	88.0	90.8	89.0	88.6	88.2	88.0	86.6	86.0	84.6	85.6	84.3	—	—	—	
σ d	84.8	83.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

Table 36.

Vertical Intensity

33900γ+.....γ

March 1933.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range
Day	83	74	62	59	63	72	80	85	87	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	81.5	89	59	30
1	81	77	70	62	65	73	79	84	86	84	83	83	84	86	86	86	86	86	85	85	86	85	85	86	81.3	87	62	25
2	80	75	67	62	63	71	77	81	84	84	83	83	84	84	84	86	86	85	86	85	86	86	83	84	80.4	86	62	24
3	82	84	(76)	68	68	76	82	84	87	83	81	83	83	84	84	86	86	85	84	85	84	84	84	86	82.1	89	66	22
4	87	83	72	62	64	70	79	87	88	84	84	84	83	84	85	86	86	85	85	85	85	85	86	86	81.9	88	61	27
5 c	80	71	(63)	60	63	69	78	81	84	83	82	83	83	83	83	87	84	84	84	85	84	85	86	87	79.7	87	60	27
6 c	83	78	73	67	66	71	75	80	84	83	82	83	84	84	84	84	84	84	84	84	85	84	84	86	80.8	88	65	23
7 c	84	78	65	56	57	62	70	76	81	82	81	83	82	80	83	83	84	84	84	84	84	84	84	86	78.2	87	54	33
8	85	79	70	62	62	66	71	78	83	84	83	84	84	85	86	86	86	86	86	86	86	85	84	86	80.6	89	61	28
9 c	85	80	67	57	57	65	77	84	87	84	83	84	84	84	85	85	85	85	84	85	84	85	86	87	80.5	88	56	32
10	83	71	62	61	66	74	77	80	82	82	81	83	83	83	83	87	87	87	87	87	87	87	89	82	81.1	93	60	32
11	89	83	75	69	71	77	82	86	83	82	82	83	83	84	85	87	86	86	86	85	85	83	83	85	82.6	88	68	20
12	83	85	82	72	68	73	80	81	80	80	80	82	81	83	86	85	85	84	86	87	88	88	90	88	81.7	90	67	22
13	81	73	65	61	62	66	73	81	82	84	84	85	85	87	87	87	87	87	85	86	86	86	86	87	80.5	88	60	28
14	86	83	72	68	72	77	83	86	(87)	86	84	83	83	81	86	87	87	87	87	87	87	86	86	87	83.2	88	68	20
15	84	79	70	65	64	70	75	81	84	84	84	84	84	84	84	84	84	84	85	85	85	85	85	87	81.1	91	64	27
16 c	91	86	75	66	69	74	80	83	85	84	82	82	82	84	84	84	86	87	86	87	86	86	85	87	82.6	91	66	25
17	86	77	57	50	55	65	74	84	87	84	85	85	87	89	88	87	94	94	87	90	87	87	87	87	81.1	94	49	45
18 d	81	80	70	65	61	66	73	81	85	86	84	86	88	87	88	90	90	92	91	84	87	84	85	88	82.2	93	61	32
19 d	88	82	66	62	74	82	88	92	92	89	86	89	92	93	93	92	92	92	93	86	85	86	88	84	86.2	95	62	33
20 d	88	78	66	62	60	65	79	85	90	89	91	87	88	92	92	92	90	91	87	87	88	89	87	92	84.0	93	53	34
21	87	77	(75)	71	74	78	77	80	89	90	91	92	92	89	92	92	92	90	92	91	92	90	88	91	86.5	95	71	24
22	92	80	72	69	72	74	83	92	91	89	89	89	89	94	90	91	91	91	89	87	87	86	90	90	86.1	95	68	27
23 d	90	81	69	62	65	76	77	86	90	89	88	92	89	93	91	92	92	92	92	88	87	88	85	89	85.1	94	61	33
24 d	86	82	73	63	68	75	82	84	89	96	89	93	91	92	94	91	91	91	90	90	90	90	90	89	86.5	96	66	30
25	89	80	70	68	72	75	80	88	84	84	86	90	90	90	91	92	93	93	91	91	91	90	91	92	85.8	95	67	28
26	92	80	67	62	62	64	67	72	80	82	84	85	90	87	87	94	92	92	92	89	88	87	91	95	82.6	96	61	35
27	93	87	79	75	73	86	96	97	94	90	88	88	89	91	89	90	90	90	90	89	88	90	91	88	88.4	97	72	25
28	86	78	62	52	61	72	83	89	89	85	86	86	87	91	90	92	92	91	91	91	91	91	94	92	84.2	94	52	42
29	80	80	70	72	80	82	82	84	86	89	90	89	88	89	90	92	92	89	88	89	89	88	90	92	85.6	93	70	23
30	91	82	72	68	69	73	77	84	86	89	86	86	89	91	91	90	90	90	90	92	90	90	94	96	85.7	96	66	30
mean	86.0	79.3	69.1	63.7	65.7	72.1	78.6	83.6	86.0	85.5	84.8	85.6	86.1	86.9	87.5	88.1	88.0	88.0	87.6	87.0	86.6	86.5	87.7	89.0	82.9	—	—	—
σ c	83.8	78.0	69.6	63.2	63.8	69.2	75.6	81.4	84.6	83.6	83.0	83.6	83.8	84.2	84.6	85.2	84.6	84.6	85.0	85.0	84.8	84.6	86.2	87.8	80.8	—	—	—
σ d	84.6	78.6	—	—	—	—	79.0	87.0	89.0	87.4	86.4	88.2	89.0	91.2	90.0	90.4	91.8	91.6	90.4	87.0	86.6	86.2	87.0	89.4	84.2	—	—	—
	86.6	80.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 37.

Vertical Intensity 33900r+.....γ

April 1933.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range	
Day	96	90	78	69	71	77	85	90	91	91	89	87	90	91	91	91	91	92	91	90	89	90	94	95	87.9	95	68	27	
1	91	81	71	65	68	76	81	85	89	88	87	89	90	89	90	90	91	91	92	90	91	90	92	96	86.0	96	65	31	
2	93	84	73	76	76	79	88	91	91	91	86	85	93	91	94	95	93	93	93	93	93	93	94	92	89.0	95	75	20	
3	90	82	70	69	80	85	90	90	90	92	91	90	91	91	91	91	92	91	91	90	90	90	90	90	87.8	93	67	26	
4	81	71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6	—	—	—	75	80	85	86	89	89	89	90	90	92	93	93	94	94	94	92	92	92	92	93	98	—	98	75	23	
7	93	82	71	67	68	74	82	88	90	89	87	87	89	90	93	90	94	93	93	90	90	92	90	89	86.3	97	66	31	
8	86	76	69	72	74	81	88	90	90	93	90	90	92	92	92	93	93	93	92	93	93	92	96	99	88.2	100	67	33	
9	94	82	69	71	76	79	84	87	87	88	90	90	91	93	93	93	96	94	94	93	93	93	96	98	88.5	98	68	29	
10	92	81	74	74	78	84	87	90	92	92	90	90	90	90	91	96	92	91	90	90	90	93	97	98	88.8	98	73	25	
11 c	92	79	71	71	78	84	89	92	90	90	89	90	89	89	90	90	91	91	92	91	90	90	92	95	96	87.9	96	69	27
12 c	94	87	75	71	78	84	89	92	91	89	86	88	89	89	90	90	90	90	90	90	90	90	93	95	87.9	95	70	25	
13 c	90	81	72	74	84	90	93	93	93	93	88	87	88	89	89	89	89	90	90	90	90	92	94	94	88.2	—	—	—	
14	89	77	66	67	72	80	83	83	86	88	86	86	86	86	86	86	86	86	89	88	88	90	90	92	91	84.7	92	65	27
15 d	87	78	71	69	71	80	83	87	91	92	88	89	87	89	89	90	93	92	92	90	89	91	90	90	90	86.1	93	68	25
16 d	85	76	72	74	80	82	90	95	95	92	92	89	92	92	95	93	92	92	92	90	92	93	90	91	89	88.5	95	72	23
17 d	78	74	72	76	81	86	90	89	94	93	92	89	91	93	92	93	101	100	92	92	92	92	92	91	90	88.9	102	71	31
18	86	75	68	71	77	72	81	86	83	89	89	92	92	92	95	92	95	95	92	90	92	92	98	91	94	86.6	95	68	27
19 d	91	79	74	74	77	84	88	87	90	93	93	95	93	101	93	95	98	95	95	95	92	92	95	92	89.9	101	71	30	
20	89	77	73	77	79	74	75	80	87	92	92	98	95	94	96	95	92	92	92	94	93	92	95	96	88.1	96	72	24	
21	90	84	77	86	91	98	92	89	88	89	93	92	91	90	92	93	94	94	93	94	92	92	92	87	90.3	94	77	17	
22	84	77	74	71	72	76	81	84	89	92	89	95	92	97	95	95	97	95	94	92	92	92	98	96	88.4	98	71	27	
23	92	84	77	76	78	74	78	81	90	92	91	92	92	92	94	95	93	92	92	92	91	92	92	92	87.7	95	73	22	
24	93	87	84	84	88	89	89	91	91	92	91	92	92	92	92	92	95	92	90	91	92	92	95	92	90.8	95	83	12	
25	86	76	68	67	68	74	83	89	89	90	90	89	91	92	92	92	92	94	92	90	92	92	93	92	90	86.2	94	67	27
26	84	78	76	78	82	86	89	88	86	89	—	—	—	—	90	95	93	92	91	—	—	—	94	95	95	—	—	—	—
27	86	83	78	79	80	84	91	93	92	92	91	92	92	98	92	92	98	93	94	95	95	96	98	90.1	96	78	18		
28 c	88	81	77	77	80	85	88	89	91	91	89	89	91	92	92	91	92	91	92	92	91	93	95	92	88.7	95	75	20	
29 c	89	82	77	73	79	81	86	89	89	88	88	91	92	92	92	92	92	91	92	92	92	91	92	93	92	88.1	93	72	21
30 d	84	79	77	78	83	86	91	91	89	89	89	89	92	92	91	91	92	92	98	90	87	92	95	89	88.9	101	76	25	
31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
mean	89.2	80.5	73.4	73.3	77.1	81.2	85.9	88.6	89.9	90.6	89.3	90.0	90.9	91.7	92.0	92.1	93.0	93.0	92.0	91.3	91.2	91.7	93.4	93.0	88.1	—	—	—	—
σ c	90.6	82.0	74.4	73.2	79.8	84.8	89.0	91.0	90.8	89.2	87.8	89.2	90.0	90.2	90.6	90.4	90.6	91.0	91.0	90.8	90.2	91.8	94.0	94.6	88.2	—	—	—	—
σ d	85.0	77.2	73.2	74.2	78.4	83.6	88.4	89.8	91.8	91.8	90.2	90.8	91.0	93.4	92.0	92.4	95.2	95.6	93.0	91.0	91.0	91.2	92.4	91.2	88.5	—	—	—	—
	83.0	74.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 38.

Vertical Intensity 83900γ+γ

May 1983.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range	
Day	77	68	70	74	75	82	89	88	91	90	92	92	95	100	90	90	98	95	98	95	97	92	93	86	88.1	106	67	39	
1 d	78	63	73	79	84	92	93	94	96	95	98	97	96	97	98	98	98	99	98	98	97	96	96	98	92.0	99	62	36	
2	98	90	84	84	84	86	92	92	96	96	95	95	95	95	96	96	96	96	95	96	95	95	100	94	93.5	100	82	17	
3	86	81	78	78	78	83	92	93	90	92	90	92	95	96	95	95	96	95	97	97	95	98	94	89	90.6	98	77	21	
4	83	82	88	88	89	90	86	89	92	92	92	93	96	96	99	99	99	99	99	99	96	96	97	100	93.1	—	—	—	
5	98	93	90	(82)	(35)	(35)	89	88	92	95	93	94	99	97	100	97	98	99	100	98	98	101	99	97	94.6	103	87	16	
6	88	55	88	91	91	91	87	88	94	97	98	98	98	98	98	99	98	98	98	98	99	101	102	99	95.1	102	82	19	
7	93	86	82	82	86	87	90	93	95	93	93	92	95	96	97	96	98	98	99	98	100	102	102	98	93.5	102	81	21	
8	87	83	81	84	90	92	89	90	92	92	93	95	96	95	97	96	98	98	96	97	98	101	100	93	93.0	101	80	21	
9 c	87	83	81	84	90	92	89	90	92	92	93	95	96	95	97	96	98	98	96	97	98	101	100	93	93.0	101	80	21	
10 c	81	71	69	77	86	92	91	92	90	92	94	95	96	96	96	96	95	95	96	96	96	98	99	94	90.8	100	69	31	
11	83	80	75	80	84	87	87	92	95	93	94	95	96	95	96	93	96	95	96	95	96	99	99	96	91.8	99	74	25	
12 c	92	87	77	77	79	86	87	88	89	92	94	93	93	91	92	94	94	94	94	94	94	95	97	94	90.3	97	75	22	
13	85	81	74	67	65	70	79	85	88	90	90	90	93	95	97	96	96	97	97	97	94	94	96	98	87.8	99	65	34	
14	87	83	81	85	82	86	93	96	93	92	90	91	95	95	97	96	97	97	97	97	97	98	97	95	92.4	99	80	19	
15	95	91	88	91	90	93	103	104	101	100	97	97	100	101	101	101	101	101	100	100	100	99	98	100	98.0	106	87	19	
16	96	95	92	93	92	96	99	99	100	98	95	95	97	101	99	99	99	99	100	98	99	100	101	101	97.6	102	91	11	
17	96	92	86	87	89	92	97	98	95	98	98	96	98	98	98	101	99	100	100	99	97	98	93	91	96.9	101	85	16	
18 d	86	84	89	87	90	87	94	92	98	101	101	100	100	98	101	103	102	102	101	100	101	101	100	96	96.4	105	83	22	
19	94	90	86	93	85	85	91	93	92	94	95	97	96	96	97	94	96	97	98	96	97	99	96	90	93.2	99	82	17	
20	81	72	68	69	72	82	90	95	96	97	94	94	95	97	98	99	100	101	98	97	98	101	97	91	90.9	102	66	36	
21	90	88	85	85	83	91	92	95	96	94	96	97	98	98	96	96	96	96	96	98	101	102	97	87	93.9	103	82	21	
22	82	78	76	80	85	90	93	95	95	94	94	96	97	98	97	98	97	98	96	97	98	101	101	96	93.0	102	76	26	
23	86	77	77	82	89	93	95	96	96	95	95	96	97	97	98	98	98	98	98	98	99	103	102	95	94.0	104	76	28	
24 c	87	82	86	86	87	92	96	99	99	96	96	97	96	97	99	100	100	102	100	100	100	102	98	85	95.1	102	81	21	
25	73	60	61	70	76	79	87	93	96	96	96	96	97	96	96	97	98	99	100	99	101	99	96	89	89.6	102	59	43	
26 c	79	67	64	68	77	89	97	97	95	95	94	95	95	95	95	95	96	96	95	96	99	102	102	98	90.9	104	62	42	
27	92	81	79	77	85	93	98	101	102	99	95	96	97	96	96	99	99	96	96	99	96	101	96	87	94.0	102	77	25	
28	81	71	62	61	67	77	92	96	98	98	98	98	98	97	95	98	98	99	99	98	98	102	101	96	90.8	102	61	41	
29 d	89	87	89	89	94	95	95	99	100	100	98	95	97	97	95	97	96	95	98	98	97	101	96	94	95.5	102	86	16	
30 d	90	81	80	80	86	90	95	97	95	95	97	101	102	101	104	104	105	113	107	102	101	103	98	90	96.5	113	77	36	
31 d	84	86	81	81	80	83	89	95	98	99	99	96	101	101	101	102	102	102	102	101	102	104	100	92	95.0	105	80	25	
mean	87.0	81.1	79.2	80.6	83.4	87.7	91.9	93.9	95.0	95.1	95.0	95.4	96.7	96.9	96.9	97.6	97.9	98.3	98.0	97.5	97.9	99.5	98.4	98.6	98.1	—	—	—	—
γ c	85.2	78.0	75.4	78.4	83.8	90.2	92.0	93.2	93.0	93.4	94.2	95.0	95.2	94.8	94.4	96.2	96.2	97.0	96.2	96.6	97.8	99.8	99.2	98.0	92.0	—	—	—	—
γ d	86.4	80.2	81.8	82.2	85.0	87.4	92.4	94.2	96.4	97.0	97.4	97.0	99.0	99.4	98.2	99.2	100.6	101.4	100.2	99.2	99.6	100.2	97.4	92.0	94.8	—	—	—	—

Table 39.

Vertical Intensity 33900γ +γ

June 1938.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range
Day	86	81	79	74	80	90	90	95	99	102	101	99	100	101	101	101	101	103	100	99	96	102	101	91	94.7	104	74	30
1 d	83	80	77	83	88	89	90	95	99	101	96	98	101	101	99	98	99	99	101	101	100	102	102	95	94.9	104	77	27
2	89	86	86	83	80	80	86	89	89	96	96	98	99	99	99	99	100	100	101	100	101	104	96	80	93.4	104	78	21
3	74	73	74	83	89	90	88	89	93	95	95	96	99	99	97	97	96	98	99	98	101	102	99	92	92.4	102	70	32
4	81	83	81	89	94	98	101	101	100	100	96	95	99	98	97	98	98	99	(102)	(102)	(104)	(107)	(104)	(96)	97.2	102	81	21
5 c	(36)	(82)	87	88	90	93	96	100	100	97	96	96	100	97	100	99	98	98	100	100	103	103	100	86	96.3	104	79	25
6 c	80	81	90	97	101	103	103	100	96	97	98	100	101	100	101	101	101	101	100	103	106	99	94	86	97.4	106	80	26
7	83	—	—	—	—	—	—	—	94	92	98	99	98	101	100	101	101	101	94	100	101	103	101	92	—	—	—	—
8	90	87	88	95	96	94	96	98	101	98	103	104	102	103	101	103	104	102	103	102	103	104	99	94	98.8	104	87	17
9	89	83	82	91	97	100	99	100	100	99	100	99	101	101	102	102	101	101	100	100	100	101	98	94	97.5	102	82	21
10	88	82	88	89	94	94	94	96	96	95	98	100	99	98	99	99	98	98	97	98	100	102	105	101	96.2	105	81	24
11	92	81	81	81	80	85	87	92	97	99	100	100	99	96	97	96	98	98	99	98	98	104	101	96	94.0	104	80	24
12	90	81	71	65	68	86	99	98	96	98	99	101	101	104	101	103	101	101	100	99	101	99	98	92	93.8	104	84	40
13 d	90	86	84	90	88	90	90	93	95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	95	84	11
14 d	—	—	68	75	86	86	91	94	98	99	97	98	100	99	97	99	99	101	99	99	98	101	99	90	—	102	68	34
15	87	84	86	87	84	84	85	92	97	98	96	97	98	98	99	99	99	92	98	98	100	102	102	98	94.2	104	83	21
16 c	91	82	74	87	95	100	96	97	101	102	101	99	101	99	100	100	101	101	99	100	102	104	102	96	97.1	105	74	31
17	89	87	86	86	92	93	95	99	100	101	102	101	101	101	101	101	101	100	99	99	101	105	102	93	97.3	106	85	21
18 c	84	76	73	71	77	84	92	97	98	99	99	100	101	100	101	101	103	103	102	100	103	106	108	102	95.1	108	68	40
19	84	76	73	71	77	84	92	97	98	99	99	100	101	100	101	101	103	103	106	107	109	102	98	92	98.6	110	80	30
20 d	94	88	84	81	85	81	92	95	99	102	102	105	109	109	108	106	106	107	106	107	109	102	98	92	—	—	—	—
21	86	80	79	81	81	86	89	94	97	96	96	99	98	96	101	105	107	105	103	101	105	105	104	101	95.6	107	80	27
22	96	88	81	85	83	92	98	98	100	101	101	99	101	99	101	101	102	100	99	99	102	100	100	98	96.6	102	80	22
23	88	82	76	79	82	81	88	92	93	95	95	97	97	97	99	97	98	96	98	98	99	100	101	98	92.8	102	74	25
24 c	93	81	72	72	82	81	79	87	92	95	97	97	96	97	100	98	98	96	97	98	99	99	95	90	91.4	102	70	32
25	89	89	89	84	83	84	91	98	99	99	98	104	103	100	100	99	99	97	96	98	101	102	103	93	95.8	105	80	25
26	84	74	68	80	87	86	86	88	92	99	97	99	102	101	101	101	101	101	100	100	103	106	106	100	94.3	107	87	40
27	92	86	88	84	85	89	91	92	95	97	97	97	99	99	104	104	105	104	104	104	105	107	102	95	96.7	108	82	26
28 d	91	82	80	84	86	91	93	98	99	99	99	102	103	103	104	103	104	103	104	106	105	105	103	98	97.7	108	80	28
29	85	87	92	91	89	93	96	101	99	100	102	102	103	98	103	104	104	105	105	104	105	105	102	99	98.9	105	82	23
30	91	90	92	99	96	95	98	98	100	101	100	102	105	105	105	106	106	105	104	104	104	103	108	102	101.0	109	89	20
31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
mean	88.4	83.1	81.4	84.1	86.7	89.7	92.4	95.6	97.3	98.6	98.6	99.5	100.7	99.9	100.7	100.7	101.1	100.6	100.6	100.7	102.1	103.2	101.3	94.6	95.9	—	—	—
σ c	91.2	84.8	82.4	84.4	88.4	89.8	91.2	95.8	97.8	98.2	97.4	97.2	98.8	98.2	99.4	99.0	98.8	97.4	99.2	99.4	101.4	103.2	100.6	94.4	95.3	—	—	—
σ d	90.2	83.0	78.5	76.0	79.7	87.0	93.5	96.5	98.2	100.2	100.2	101.7	103.2	104.2	103.5	103.2	103.0	103.5	102.5	102.7	102.7	102.0	100.0	96.2	96.2	—	—	—
σ e	86.0	83.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 40.

Vertical Intensity 33900 γ +..... γ

July 1933.

G.M.T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range	
Dwy																													
1	95	94	87	87	88	92	92	93	96	99	102	100	101	102	104	103	104	103	103	102	102	103	100	96	97.8	104	86	18	
2	94	90	85	87	82	84	85	96	100	100	100	100	99	101	101	101	101	101	100	99	100	102	105	102	—	105	82	19	
3	—	91	91	92	90	87	88	90	94	96	97	99	99	100	100	102	102	102	102	102	102	105	102	97	97.4	106	78	20	
4	96	87	84	78	81	90	97	100	103	102	103	104	102	99	99	100	100	100	102	102	102	103	105	100	98	106	78	28	
5	91	89	87	91	91	92	93	99	102	102	102	102	102	102	105	104	103	102	100	102	103	105	100	93	98.4	105	87	18	
6	90	91	93	91	87	94	100	102	102	102	99	97	102	105	103	101	100	100	100	101	102	106	105	99	98.8	107	86	21	
7	94	91	81	81	82	91	97	100	101	98	99	100	100	100	101	99	102	102	102	102	100	100	99	95	96.7	103	81	22	
8	91	89	82	83	83	89	91	93	100	100	99	99	102	102	101	100	102	103	100	101	102	103	108	93	96.8	110	73	37	
9 d	73	69	69	75	84	88	96	97	94	100	103	104	105	107	105	105	105	105	106	106	104	103	109	106	96.6	109	66	43	
10	97	85	73	71	70	69	79	95	104	106	101	101	105	105	106	105	105	105	104	103	104	104	101	100	95.8	107	69	38	
11	96	89	84	77	74	74	82	91	99	101	103	103	107	107	107	107	105	104	102	102	104	107	103	102	97.3	109	73	36	
12	89	86	83	80	80	82	91	98	101	101	101	103	104	104	105	102	103	102	101	101	103	107	107	102	97.3	108	79	29	
13 c	95	87	84	87	83	89	98	104	104	104	104	102	104	105	103	102	103	102	102	102	103	107	109	105	99.5	110	82	28	
14 c	96	83	72	77	83	86	89	94	99	101	99	101	103	103	103	102	103	103	103	103	103	107	105	99	96.5	107	72	35	
15 c	92	84	77	81	83	85	88	100	102	102	99	101	102	104	106	106	106	104	106	106	106	109	107	101	98.2	109	77	32	
16	97	86	85	90	90	90	100	104	104	105	103	103	105	105	104	106	106	106	106	106	106	105	104	100	100.6	107	85	22	
17 d	91	85	79	84	100	103	100	102	103	102	103	103	104	108	103	107	110	109	109	109	110	112	113	109	101	101.9	114	78	36
18	94	82	81	95	94	95	100	103	104	103	103	105	105	106	106	108	109	109	106	108	109	112	109	104	102.1	112	79	33	
19	100	95	92	97	101	96	100	106	107	106	104	103	106	107	106	106	107	106	106	106	107	109	106	100	103.3	109	90	19	
20	97	83	85	86	86	92	99	104	106	104	101	104	107	106	106	107	108	108	107	107	107	108	110	107	101.8	111	85	26	
21 c	105	95	95	92	98	102	107	103	108	108	105	106	108	103	108	109	103	109	109	109	108	109	111	105	105.5	113	92	21	
22	103	94	95	92	94	103	105	103	102	103	106	105	106	106	106	108	108	109	108	109	110	110	100	98	103.3	112	85	27	
23 d	85	82	84	93	93	102	109	113	111	110	107	106	103	108	111	106	111	115	112	112	112	116	114	114	106	105.8	118	81	37
24 d	94	94	101	100	95	106	112	111	105	100	109	111	112	112	111	115	117	111	111	111	111	113	111	105	106	107.2	118	92	26
25	100	91	87	93	97	102	102	108	114	112	110	109	110	111	110	110	110	110	105	111	112	115	112	102	106.0	116	87	29	
26	97	99	94	93	97	102	111	111	107	106	103	108	109	111	110	108	108	109	111	111	112	114	112	106	106.4	114	98	21	
27 d	100	99	102	98	99	100	105	109	109	108	105	108	112	111	112	113	113	113	113	113	113	113	113	101	107.8	119	91	23	
28	99	96	81	90	95	101	106	109	113	114	112	112	112	114	111	112	112	113	113	113	113	114	114	109	107.0	115	81	34	
29	103	91	79	87	91	95	99	105	110	110	109	109	107	108	105	108	111	111	111	111	111	112	114	114	108	104.5	114	78	36
30 c	100	95	93	96	94	96	101	105	109	108	106	106	107	109	109	109	108	109	111	111	111	111	112	111	105.3	113	92	21	
31	106	100	90	90	90	96	103	109	109	107	107	108	111	112	113	110	109	110	111	112	112	115	114	112	106.5	115	90	25	
mean	95.4	89.2	85.7	87.6	89.3	93.0	98.0	102.2	104.1	104.0	103.6	104.1	105.4	105.2	105.9	106.0	106.6	106.5	106.0	106.3	107.1	109.0	107.4	102.0	101.3	—	—	—	—
σ c	97.6	88.8	84.2	86.6	88.2	91.6	96.6	102.2	104.4	104.6	102.6	103.2	104.8	105.8	105.8	105.6	105.8	105.4	105.2	106.2	106.4	108.6	108.8	104.2	101.0	—	—	—	—
σ d	93.8	89.4	87.0	90.0	95.2	99.8	104.4	106.4	104.4	104.0	105.4	106.4	107.2	108.2	108.4	109.2	111.2	110.8	110.2	110.4	111.8	111.8	111.0	99.6	103.8	—	—	—	—
	96.3	87.6																						104.0					

Table 41.

Vertical Intensity 88900γ+.....γ

August 1938.

G. M. T.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	Max.	Min.	Range
Day	102	93	91	89	89	95	101	108	107	107	106	107	107	107	107	107	107	108	107	107	107	109	109	106	103.5	110	88	22
1 c	101	89	82	85	94	101	106	106	107	106	106	105	107	108	110	110	109	110	110	110	110	111	111	107	104.2	118	80	33
2	107	103	98	94	89	90	100	110	111	107	107	107	107	108	108	108	110	108	109	108	108	111	111	104	105.1	112	89	23
3	104	98	98	105	97	92	101	107	107	105	105	107	108	108	108	108	108	107	107	108	108	114	113	105	105.4	115	93	22
4	102	93	92	96	98	98	108	104	104	102	107	116	116	110	107	107	125	127	117	119	111	114	107	102	107.4	129	92	57
5 d	93	92	96	91	109	114	119	123	122	117	116	117	115	118	113	114	113	115	115	115	115	119	116	109	111.9	122	89	34
6 d	104	96	92	89	93	100	112	118	115	97	109	110	110	113	113	113	113	114	116	113	113	116	114	107	107.9	119	88	31
7	95	86	89	89	90	102	107	110	110	110	109	110	111	113	113	111	113	113	113	110	113	115	113	107	106.3	115	86	29
8	103	98	94	92	95	102	107	112	111	111	111	111	111	112	110	112	112	112	113	115	115	118	116	112	108.6	—	—	—
9 c	103	94	88	89	90	96	(102)	(107)	108	110	111	113	113	114	110	111	113	114	113	113	114	117	111	107.2	—	—	—	—
10 c	108	98	90	84	84	91	99	106	113	113	112	113	111	112	113	115	114	114	113	112	112	113	115	110	106.6	115	84	31
11 c	103	85	82	82	83	87	98	106	109	109	109	110	112	112	112	113	113	112	112	113	113	115	112	108	104.6	115	80	35
12	97	89	85	93	97	99	104	113	112	109	104	102	106	113	115	119	119	113	115	118	118	116	115	100	107.2	121	86	36
13 d	98	86	82	88	98	103	106	110	113	113	115	115	115	115	113	114	110	113	116	115	116	116	113	109	107.8	118	80	38
14	100	93	89	93	92	96	103	111	113	112	112	112	113	115	117	117	119	119	118	119	119	120	116	108	109.4	—	—	—
15	103	104	102	104	108	118	124	122	122	119	117	119	120	119	117	117	117	117	119	119	119	122	117	112	115.7	—	—	—
16	102	95	91	90	95	100	112	111	108	110	115	117	116	116	114	115	117	120	121	121	118	123	117	110	110.6	—	—	—
17	106	99	102	106	111	117	115	113	117	115	115	118	123	116	120	118	118	118	118	117	119	120	117	109	114.5	123	95	28
18 d	95	86	85	90	95	102	105	113	113	112	112	114	112	117	115	117	—	—	—	—	—	117	119	113	—	—	—	—
19	108	106	105	105	105	111	114	119	118	115	112	117	116	118	117	119	120	121	119	119	118	121	116	113	114.7	124	103	21
20	107	103	106	107	110	112	115	114	112	114	114	116	117	117	116	117	117	118	118	117	117	118	114	107	113.5	119	102	17
21 d	99	—	—	—	—	—	—	—	105	107	109	113	114	115	115	116	119	118	119	120	119	121	115	109	—	—	—	—
22	100	95	92	96	103	107	112	117	114	109	111	117	118	118	119	121	120	122	122	120	119	119	116	109	112.3	122	91	31
23	100	95	93	96	98	101	110	115	118	117	115	117	119	121	117	119	119	119	120	122	121	123	122	114	113.0	124	93	31
24	104	92	90	99	109	114	120	116	115	114	114	115	115	118	118	119	119	119	120	119	118	122	119	115	113.5	122	89	33
25	105	97	94	101	101	110	115	117	116	113	115	117	117	117	116	116	116	117	118	119	119	120	118	110	112.7	120	93	27
26	106	94	92	92	99	105	110	111	114	114	113	114	115	114	115	115	116	116	116	116	115	116	115	112	110.2	118	90	28
27	99	97	100	98	100	106	106	109	112	112	114	116	114	114	115	116	117	117	117	116	117	118	113	112	110.6	118	97	21
28	109	105	106	106	101	106	110	112	113	113	113	113	113	113	115	116	116	115	115	116	116	116	116	116	112.2	117	98	19
29	114	106	103	102	105	108	108	109	110	109	111	112	113	114	114	114	115	115	116	116	115	116	112	111	111.3	116	102	14
30	102.6	95.8	98.7	95.0	97.9	102.9	103.6	112.0	112.6	110.8	111.4	113.0	113.5	114.0	113.7	114.3	115.2	115.6	115.4	115.5	115.2	117.2	114.6	109.1	109.6	—	—	—
31 c	105.0	97.8	98.2	91.2	92.6	98.4	103.4	108.4	109.8	110.0	110.2	111.2	111.0	111.8	110.8	112.0	112.2	112.8	112.4	112.4	112.8	115.0	113.8	111.6	107.4	—	—	—
mean	102.5	91.5	93.2	91.2	92.6	98.4	103.4	108.4	109.8	110.0	110.2	111.2	111.0	111.8	110.8	112.0	112.2	112.8	112.4	112.4	112.8	115.0	113.8	111.6	107.4	—	—	—
σ c	100.0	95.0	94.5	96.2	102.2	105.5	110.0	114.7	114.0	110.7	109.7	113.0	113.2	114.7	113.0	114.7	119.2	119.5	116.5	117.7	115.5	117.5	113.5	107.0	110.2	—	—	—
σ d	99.2	94.2	94.5	96.2	102.2	105.5	110.0	114.7	114.0	110.7	109.7	113.0	113.2	114.7	113.0	114.7	119.2	119.5	116.5	117.7	115.5	117.5	113.5	107.0	110.2	—	—	—

Table 42.

Character Figures

Month/Day	32 Aug.	Sep.	Oct.	Nov.	Dec.	33 Jan.	Feb.	Mar.	April	May	June	July	Aug.
1	0	1	0	1	0	0	0	0	0	2	1	0	0
2	—	1	1	0	0	0	0	0	0	1	0	0	0
3	—	0	1	0	0	0	0	0	1	0	0	0	0
4	—	0	1	0	0	0	0	0	1	1	0	0	0
5	0	1	0	0	0	0	—	0	—	1	0	0	2
6	0	2	0	0	0	1	0	0	0	1	0	0	1
7	0	1	0	0	0	0	0	0	1	1	0	1	1
8	0	1	0	0	1	0	0	0	0	0	1	1	0
9	0	1	0	0	1	0	0	0	0	0	0	2	0
10	0	0	0	0	0	0	0	0	1	0	0	1	0
11	1	0	0	0	0	0	0	1	0	0	0	0	0
12	1	0	0	1	0	0	0	0	0	0	0	0	0
13	1	0	0	1	1	0	0	0	0	1	1	0	2
14	0	1	1	1	2	0	0	0	0	1	0	0	1
15	0	1	2	1	2	1	0	0	0	1	0	0	1
16	0	0	1	2	1	0	0	0	1	0	0	0	0
17	0	0	1	1	1	0	0	0	1	1	0	1	1
18	0	1	—	0	1	0	0	1	1	1	0	1	—
19	0	1	1	0	1	1	2	1	1	0	0	0	1
20	1	1	1	0	0	1	1	2	1	0	1	0	1
21	1	0	1	0	0	0	1	1	1	0	0	0	1
22	1	1	0	0	0	1	2	1	1	0	0	0	0
23	1	2	1	0	0	1	1	1	0	0	0	1	1
24	1	1	1	0	0	1	0	1	0	0	0	2	1
25	0	2	0	1	1	0	0	0	0	0	0	0	1
26	1	1	0	0	0	0	0	0	0	0	0	0	1
27	2	1	0	0	0	2	0	0	0	1	0	1	0
28	2	0	0	1	0	1	0	0	0	0	1	0	0
29	2	1	0	0	0	0	—	0	0	1	0	0	0
30	2	0	1	0	0	0	—	0	2	1	0	0	0
31	1	—	0	—	0	0	—	0	—	1	—	0	0

Table 48.

Numerical Character Numbers

$$\frac{R_H \cdot H + R_Z \cdot Z}{10000}$$

Month/Day	32 Aug.	Sep.	Oct.	Nov.	Dec.	33 Jan.	Feb.	Mar.	April	May	June	July	Aug.
1	339	251	197	338	175	172	153	147	168	578	234	94	169
2	—	259	283	169	143	174	245	152	178	856	193	122	202
3	—	249	177	168	143	144	192	174	249	193	197	203	157
4	—	207	244	175	139	121	208	159	231	181	181	177	139
5	278	272	222	165	111	151	—	138	—	139	120	162	419
6	211	529	173	147	156	283	—	173	192	223	130	198	357
7	142	208	176	120	91	128	—	119	196	245	132	163	258
8	200	340	149	128	276	162	—	174	181	180	—	323	239-
9	252	214	139	102	270	139	—	166	266	160	167	322	(204)
10	152	152	148	142	129	129	—	219	208	211	192	224	(22£)
11	220	135	150	145	112	196	—	242	209	169	200	277	202
12	234	134	153	216	153	128	—	137	170	172	216	176	286
13	297	160	182	155	196	127	—	164	223	277	327	186	385
14	225	266	219	287	382	128	—	179	233	227	193	214	201
15	254	218	629	219	192	388	197	161	198	207	223	173	207
16	195	200	260	304	251	163	131	166	239	153	136	179	183
17	224	276	173	205	247	164	169	179	298	190	208	308	296
18	240	238	—	151	195	128	185	328	194	310	—	277	—
19	286	258	164	172	164	302	390	262	253	152	—	148	271
20	274	252	238	173	141	246	174	360	260	201	—	199	(204)
21	331	142	283	114	105	129	238	291	224	190	204	181	240
22	237	305	134	122	101	227	226	236	249	277	154	179	146
23	198	349	349	133	155	245	239	277	196	228	167	311	—
24	—	220	217	127	100	206	—	262	142	206	—	362	204
25	222	295	202	234	198	154	—	247	199	230	236	161	260
26	182	167	123	131	97	142	—	243	123	204	257	191	318
27	361	297	255	129	180	157	226	344	156	227	272	265	181
28	—	172	137	223	175	162	160	235	124	268	—	235	197
29	258	245	170	208	113	146	—	297	172	211	192	256	144
30	321	190	302	133	97	162	—	204	324	361	126	173	142
31	206	—	182	—	—	168	—	235	—	172	—	183	153

Numerical character Numbers

Table 44.

Month/Day	32 Aug.	Sep.	Oct.	Nov.	Dec.	33 Jan.	Feb.	Mar.	April	May	June	July	Aug.
1	120	159	145	256	106	120	93	44	73	445	182	53	98
2	—	141	219	106	78	111	137	64	80	233	101	57	92
3	—	117	106	97	117	85	(120)	89	180	123	72	136	79
4	—	86	182	92	80	72	—	82	144	123	72	82	63
5	173	172	189	91	44	87	—	41	—	77	53	101	291
6	100	385	107	86	110	217	—	77	113	174	50	120	242
7	73	132	96	72	57	85	—	40	122	186	64	88	156
8	93	245	72	70	223	92	—	63	70	108	—	198	140
9	180	144	129	48	210	99	—	70	166	88	109	180	(122)
10	73	106	95	92	93	65	—	108	121	106	119	96	(132)
11	115	81	93	76	64	136	—	127	116	84	113	154	90
12	153	91	114	163	97	55	—	61	85	92	130	79	105
13	206	93	106	89	143	62	—	90	141	157	189	91	262
14	127	185	180	201	298	97	—	83	141	166	(89)	99	73
15	165	123	512	162	134	314	137	91	114	143	106	66	108
16	90	144	168	204	182	122	77	71	158	113	64	106	109
17	148	188	128	128	182	77	104	92	194	136	106	183	179
18	137	165	47	85	144	64	108	174	102	232	—	166	—
19	172	163	97	105	134	224	304	130	150	91	—	84	176
20	156	160	168	99	105	184	139	244	176	84	—	113	(88)
21	186	87	197	54	72	79	165	175	167	123	112	114	170
22	193	221	93	60	75	157	164	153	157	190	79	86	83
23	113	255	278	90	104	175	184	184	119	132	69	135	—
24	—	170	166	65	58	134	—	180	100	138	—	271	101
25	136	204	125	182	145	84	—	144	105	79	155	64	159
26	99	117	56	88	(72)	99	—	147	67	62	128	119	207
27	270	214	182	70	106	111	119	222	98	143	189	178	89
28	—	107	78	168	114	126	84	148	66	128	—	118	99
29	169	194	83	127	67	96	—	152	99	168	114	128	72
30	230	137	212	92	64	108	—	124	238	240	59	101	77
31	(135)	—	119	—	—	79	—	188	—	88	—	101	97

Table 45.

Numerical character Numbers

 $\frac{R \cdot Z \cdot Z}{10000}$

Month/Day	22 Aug	Sep.	Oct.	Nov.	Dec.	83 Jan.	Feb.	Mar.	April	May	June	July	Aug.
1	219	92	52	(82)	69	52	60	103	95	133	102	94	76
2	—	118	64	63	65	63	108	88	98	123	123	123	110
3	—	132	71	56	56	59	63	85	69	57	107	203	78
4	—	121	62	83	59	49	88	77	87	72	103	177	76
5	105	100	63	74	67	64	—	92	—	62	67	162	123
6	111	144	66	61	46	66	—	96	70	49	80	193	115
7	69	76	80	48	34	53	—	79	74	59	88	163	102
8	107	95	77	58	53	70	—	111	111	72	—	323	93
9	72	70	60	54	60	40	—	96	100	72	58	322	(81)
10	79	46	53	50	36	64	—	111	87	105	73	224	(11)
11	105	54	57	69	48	60	—	115	93	85	87	277	113
12	101	43	39	(53)	56	73	—	76	85	80	86	176	121
13	91	67	76	66	53	68	—	74	82	120	138	186	123
14	98	81	69	86	84	41	—	96	92	61	(89)	214	128
15	89	95	117	57	58	74	60	70	84	64	117	173	99
16	105	56	92	100	69	41	54	95	81	40	72	173	71
17	76	88	45	77	65	87	65	87	104	54	102	208	117
18	103	73	—	66	51	64	77	154	92	78	—	277	—
19	114	95	67	67	30	78	86	112	103	61	—	148	95
20	118	92	70	74	36	62	35	116	84	117	—	199	(116)
21	145	55	86	60	33	50	93	116	57	67	92	181	70
22	104	84	41	62	26	70	62	83	92	87	75	179	57
23	85	110	71	43	51	70	75	93	77	96	98	311	—
24	—	60	51	62	42	72	53	112	42	68	—	362	103
25	86	91	77	52	53	70	59	103	94	151	81	161	101
26	83	50	67	43	24	43	—	96	66	142	184	191	111
27	91	83	73	59	74	46	107	122	63	84	83	265	92
28	—	65	59	55	61	36	76	87	68	140	—	235	98
29	89	51	87	81	46	50	—	145	73	53	78	256	72
30	91	53	90	41	33	54	—	80	86	121	67	173	65
31	71	—	63	—	—	85	—	97	—	84	—	183	56